

# REMOVAL ACTION SUMMARY REPORT

## FORMER GST STEEL SITE Kansas City, Missouri

*Project: 148313*

*July 18, 2014*

Prepared for:

Mile Rail, LLC  
281 Woodcreek Court  
Commerce, MI. 48390

Prepared by:



CB&I Environmental and Infrastructure  
11206 Thompson Avenue  
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RCRA



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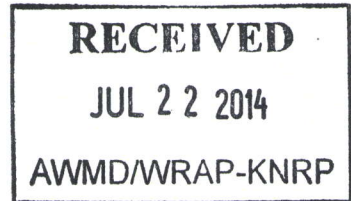
**AWMD/WRAP-KNRP**



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July 21, 2014

Mr. Bruce Morrison  
Environmental Engineer  
Air and Waste Management Division  
U.S. Environmental Protection Agency, Region 7  
11201 Renner Boulevard  
Lenexa, Kansas 66219



**Subject:** Removal Action Summary Report

Dear Mr. Morrison:

On the behalf of Mile Rail, LLC (Mile Rail), CB&I Environmental and Infrastructure (CB&I) submits two copies of the *Removal Action Summary Report* (RA Report) to the U.S. Environmental Protection Agency (EPA) regarding the former GST Steel facility (Site) located at 8116 Wilson Road, Kansas City, Missouri. The RA Report was prepared to provide a summary of the removal action activities and results of the confirmation samples at the Site. This RA fulfills the requirements of 40 CFR 761.61 for remediating PCB impacted soil to Low Occupancy Levels at the Site and; therefore, Mile Rail requests closure of the former GST Steel facility property.

If you have any questions, please contact me at (913) 317-3591.

Sincerely,

A handwritten signature in black ink, appearing to read 'Mark L. Finney'.

Mark L. Finney, R.G.  
Project Manager

cc: Christine Kump-Mitchell, MDNR  
Glen Schwartz, Mile Rail, LLC

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## 1.0 SITE BACKGROUND

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### 1.1 Introduction

On the behalf of Mile Rail, LLC (Mile Rail), CB&I Environmental and Infrastructure (CB&I), formerly Shaw Environmental, is pleased to submit this Removal Action Summary Report (RA Report) to the U. S. Environmental Protection Agency (EPA) which documents work performed by Mile Rail to implement the Remedial Action (RA) at the former GST Steel facility (Site) located at 8116 Wilson Road, Kansas City, Missouri. Fluids containing polychlorinated biphenyl (PCB) were discharged from an unknown number of transformers onto the ground adjacent to the former electrical substation located on the far eastern extent of the Site. Subsequently impacting portions of the concrete pad associated with the substation and the adjacent soil on the north and east sides of the substation.

PCB concentrations were identified in portions of the former substation concrete pad, fill material placed in Excavation 2, and in the soil northeast of the pad. RA activities performed by Mile Rail were completed in accordance with the EPA-approved Removal Action Plan (RAP) and 40 CFR 761.61 and Subpart O. These RA activities were completed on May 21, 2014. This RA Report documents the work performed by Mile Rail.

### 1.2 Background

Initial RA activities were conducted by Compass Big Blue, LLC (Compass) and documented by West Central Environmental Consultants, Inc. (WCEC). The majority of the known PCB impacted soil were removed from the site and disposed at an approved offsite landfill. Compass discontinued RA activities in November 2012 and filled the initial excavations and a concrete vault with soil from an undetermined location. Leaving PCB impacted soil above 25 parts per million (ppm) onsite east of the former substation pad, extending to the northeast. The initial RA activities were conducted under the "Notification & Certification of Self-Implementing Cleanup and Disposal of PCB Remediation Waste" work plan dated March 31, 2012 to document the proposed polychlorinated biphenyl (PCB) characterization sampling activities.

On November 26, 2012, the Environmental Protection Agency Region 7 (EPA) requested testing of the fill material placed in the previous excavation, testing of the concrete vault located beneath the substation pad, and characterization of the PCBs in the soil to 1 ppm prior to conducting any

further RA activities. The results of this investigation identified PCB concentrations exceeding the limit for Low Occupancy Areas in portions of the concrete pad and in the soil used as fill material in the former excavations. PCB concentrations in the side walls of the vault were below the Low Occupancy Standards and were left in place.

### **1.3 Site Conditions**

The Site is the former GST Steel facility located at 8116 Wilson Road, Kansas City, Missouri. The Site is located in Section 31, Township 50 North, Range 32 West in Jackson County, Missouri. The Site and surrounding properties are zoned commercial/industrial. The Site is located adjacent to the Union Pacific Railroad Company's property in the vicinity of Mile Post 277.3, K.C Metro (Neff Yard) in Kansas City, Missouri.

The Site is located in the far eastern portion of the former GST Steel facility on a narrow ridge positioned between two railroad tracks that come together east of the Site forming a Y. The surface topography is relatively flat on top of the ridge and drops off steeply to the north-northeast and south-southeast to the access roads that run parallel to the railroad tracks. The side slopes are heavily vegetated with brush and trees. The area to the west is a relatively flat parcel that is undeveloped and covered with gravel with little to no vegetation. The Site is well drained with no discernable drainage issues. The overall surface drainage is generally to the north and northeast towards the Little Blue River.

Previous investigations indicated that residual PCBs remained in the soil on the northeast portion of the concrete pad extending to the northeast towards the UP property. Soil from an unknown source was placed in the previous excavations by Compass following the RA completed in November 2012. No analytical data was provided to demonstrate the soil was free of PCBs prior to placement in the excavations. Subsequent testing of the soil used for fill material indicated that the soil contained PCBs. In addition, no analytical testing was conducted on the former substation concrete pad and associated vault. Chip samples collected from the concrete pad indicated that portions of the pad were impacted with respect to PCBs that exceed the limit for a Low Occupancy Area, while PCB concentrations in the vault walls were below the limit for a Low Occupancy Area.

### **1.4 Soil Characterization**

On August 20, 2013, continuous soil samples were collected from 14 locations in an effort to delineate the horizontal and vertical extent of the remaining PCBs in the soil. Continuous soil samples were collected at each sample location using a direct push (Geoprobe™) rig to advance a 4-foot macro sampler with a disposable PVC liner to the target depth. A new PVC line was

used at each sample interval. Upon retrieval, the sampler was opened, visually inspected for content, and measured for sample recovery. A discrete soil sample was collected from the designated sample interval and submitted to a certified laboratory for PCB analysis using EPA Method 8082. Soil sample depths were referenced from the top of the former concrete pad.

All sample activities were conducted in accordance with Section 2.0 of the Work Plan (Shaw, 2013). The limits of PCBs in the soil were defined to 1 mg/kg on the Mile Rail property. PCBs concentrations in the soil exceeding the Low Occupancy Limit extend to the north property line and may extend off site to the northeast onto the adjacent property owned by the Union Pacific Railroad Company. PCBs in the soil on Mile Rail property were detected in a narrow band from CS-101S (230 mg/kg) located in Excavation 4 extending to the northeast to CS-307 (740 mg/kg). The detection at CS-101S was located at approximately 6.6 feet below the pad reference elevation and trended downward as it migrated to the northeast to 14 to 16 feet below the pad at CS-102E (580 mg/kg), and to 16 to 22 feet below the top of the pad near the north property line at CS-307 (740 mg/kg). The analytical testing results are summarized in **Table 1** and illustrated in **Figure 1**.

## 2.0 REMOVAL ACTION OBJECTIVES

RA activities were completed on May 21, 2014 in accordance with the EPA-approved RAD. This RA Report documents the work performed by Mile Rail at the former GST Steel Facility.

The contaminant of concern (COC) was PCB presumably resulting from the discharge of transformer fluids at the former substation by copper thieves. Portions of the substation's concrete slab and the adjacent soil were impacted as a result of this activity. PCB was identified in the soil primarily on the east side and to a lesser extent on the north side of the concrete pad extending to the northeast toward the railroad tracks.

The objective of the RA was to remove all PCB impacted material above the Low Occupancy Standard and dispose of the material in the appropriate waste management unit. The following tasks were performed to meet the objective:

- Removed all PCB impacted concrete associated with the identified concrete pad and vault. Dispose of the demolition waste concrete to the appropriate waste management unit based on available analytical data.
- Excavated all PCB impacted fill material within the limits of the former excavations. Dispose of the excavated material to the appropriate waste management unit based on available analytical data.
- Excavated all PCB impacted soil on Mile Rail property above the Low Occupancy Standard and dispose of the excavate soil to the appropriate waste management unit based on available analytical data.
- Collected confirmation samples of the native soil following excavation activities to confirm all impacted soil above the Low Occupancy Standard has been removed.
- All required concrete, soil, and fill material samples were submitted to an EPA certified laboratory for PCBs analysis.
- Prepare a brief report to summarize the RA activities. The report will include the cumulative analytical data, summary of RA construction activities, copies of the waste manifests, and photographic log of activities.

## **2.1 Target Cleanup Goals**

The impacted soil identified on site during the characterization phase will be remediated to Low Occupancy Standards. Concrete and fill/soils with confirmed concentrations greater than 25 mg/Kg of PCBs were excavated and disposed offsite at the permitted land disposal facilities. Materials classified as non-hazardous with supporting analytical data were disposed offsite as special waste at a permitted facility. Materials classified as hazardous waste or PCB concentrations greater than the local disposal facility's permit limit were disposed offsite at a permitted TSCA waste management facility.

## **3.0 REMOVAL ACTION**

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### **3.1 Removal Action Construction**

The RA activities performed by Mile Rail as set forth in the approved RAD included the excavation, transportation, and final disposal of PCB impacted materials from the Site depicted in **Figure 2**. PCB impacted soil identified during the site investigation was excavated and disposed at the respective landfill permitted to receive special waste or TSCA waste. Confirmation sampling was conducted within the limits of the excavation to confirm that PCBs concentrations were below the levels for Low Occupancy Standards. The limit of the excavation is illustrated in **Figures 3 and 4**. Photographic documentation of the RA construction activities are provided in **Appendix A**.

Confirmation samples were collected from the exposed excavation side walls and bottom following the excavation of the impacted soil to confirm residual PCBs concentrations. The fill was compacted in lifts and graded to promote drainage to the northeast, east, and southeast.

The RA provides protection of human health and the environment through the removal of impacted soil. PCB concentrations in the soils left on site were below the levels for Low Occupancy Standards. All disturbed areas including the location of the former pad and vault, were covered with soil fill material.

#### **2.1.1 Best Management Practices**

Best Management Practices were not required during the RA construction activities. The Site is located on a narrow ridge located between the junction of two railroad tracks. Previous RA work conducted by others resulted in the formation of a relatively shallow pit which contained all direct precipitation from leaving the area of disturbance. The location of the work area on the ridge limited the runoff of surface water from areas outside of the area of disturbance. No measureable precipitation occurred during periods of construction; therefore, no surface water management activities were required.

#### **3.1.2 Site Preparation**

Minimal site preparation was required for the RA construction activities. Minimal vegetation was cleared along the south and east portions of the pad to provide access for equipment. Minor

grading occurred along the south extent of the former pad to provide a path for hauling soil from the excavation to haul trucks. No free liquids were observed in the prior excavation during the RA construction activities as observed in Photographs provided in **Appendix A**.

Vegetation and construction debris generated during the RA site preparation was transported and disposed at the Johnson County Landfill located in Shawnee, Kansas. Manifests for the disposal of the construction debris and soil were provided to the Engineer on a daily basis.

### **3.1.3 Excavation**

All investigation and remedial activities were conducted under the EPA approved Work Plan and "Removal Action Plan" (RAP) dated July 2013. Per the client's requests, characterization and removal action activities were conducted in conjunction with an attempt to expedite the schedule. The results of the concrete pad and fill material sampling are summarized in the RAP and illustrated on **Figure 1**. A summary of the concrete pad and fill removal, vault sampling, and characterization sampling activities are provided below.

Soil with PCB concentrations less than 25 mg/kg were left on site. Impacted soil with PCB concentrations exceeding 25 mg/kg on Mile Rail property were excavated and disposed at an EPA approved landfill as outlined in Section 4.1.5 of the RAP (Shaw, 2013c). Non-hazardous soil with PCB concentrations greater than 25 mg/kg but less than 50 mg/kg was disposed at the Johnson County Landfill. Soils classified as hazardous, PCB concentrations greater than 50 mg/kg, were disposed as TSCA waste at the Heritage Environmental Services, LLC facility located in Roachdale, Indiana. Confirmation samples were collected on the sidewalls and floor of the excavation to confirm all impacted soil above 25 mg/kg of PCBs had been removed.

#### **3.1.3.1 Concrete Pad and Fill Material Disposal**

A RA was conducted from July 31, 2013 through August 1, 2013 to remove portions of the identified PCB containing waste from the site agreed on by the EPA and Mile Rail. This included the former substation concrete pad, the majority of the soil located within the confines of the vault, and fill material previously placed in the excavations by others. Waste containing PCB concentrations below 50 mg/kg were disposed at the Johnson County Landfill. Materials containing PCB at or greater than 50 mg/kg were disposed at the Heritage Environmental Services, LLC hazardous waste facility located in Roachdale, Indiana. Below are the actual quantities of materials disposed offsite at the approved land disposal facilities during the RA conducted on July 31 and August 1, 2013:

Heritage (TSCA waste):

- End Dump: 21.89 Tons
- Roll-off #1: 11.33 Tons
- Roll-off #2: 14.01 Tons

Johnson County Landfill – Deffenbaugh (special waste):

6 End dumps:

- End Dump: 7.19 Tons
- End Dump: 14.47 Tons
- End Dump: 25.40 Tons
- End Dump: 14.56 Tons
- End Dump: 17.61 Tons
- End Dump: 13.10 Tons

3.1.3.2 *Vault Samples (concrete, sediment, and water)*

Samples were collected from the side walls and contents of the vault to determine final disposition of the concrete vault. On August 8, 2013, the remaining sediment and water in the vault were sampled and submitted for PCB analysis using EAP Method 8082. The results of the analytical testing indicated that the sediment in the vault contained 1.3 mg/kg of PCB and the water contained 37.2 ug/L of PCBs. On October 1, 2013, attempts were made to remove the water from the vault to collect chip samples of the opposing side walls and floor of the vault. Ten, 55-gallon drums of water were pumped from the vault in an attempt to dewater the vault. The water level maintained approximately 8 to 10 inches deep through this process, preventing the collection of the chip sample from the vault floor. Chip samples were collected from the opposing north and south side walls from a level with observed staining. PCB concentrations in the sediment and chip samples were below the Low Occupancy Standard of 25 mg/kg. The results of the analytical testing are summarized in **Table 1**.

3.1.3.3 *Impacted Soil Disposal*

The final phase of the RA was conducted on April 16, 2014, May 7, 2014, and May 20, 2014 to remove the identified impacted soil with PCB concentration exceeding 25 ppm. This included the area on Mile Rail property identified during the site investigation conducted on August 20, 2013. All excavated soil was assumed to be comingled with soil containing PCB at or greater than 50 mg/kg and; therefore, were disposed at the Heritage Environmental Services, LLC

hazardous waste facility located in Roachdale, Indiana. Below are the actual quantities of materials disposed offsite at the approved land disposal facilities during the RA conducted on April and May 2014:

Heritage (TSCA waste):

- End Dump (April 16, 2014): 26.99 Tons
- End Dump (May 7, 2014): 22.94 Tons
- End Dump (May 20, 2014): 17.07 Tons

A total of 206.56 tons of impacted concrete, fill material, and soil were excavated from the Site and disposed at the Johnson County and Heritage Landfills. Photographs documenting the excavation activities are provided in **Appendix A**.

The demolition of the top of the vault and concrete pad was accomplished using a Volvo BL60B backhoe equipped with a hydraulic ram. Impacted soil was excavated during the initial phase using a CAT mini excavator. The final excavation of impacted soil was conducted using CAT 320 excavator for additional reach requirements.

Waste manifest disposal tickets were provided to each driver onsite at the time they were loaded. A signed copy of the special waste manifest disposal ticket and associated landfill weight ticket were returned to the CB&I representative. A summary of the weight tickets are provided in **Appendix C**.

#### **3.1.4 Confirmation Sampling**

Confirmation samples were collected from the exposed side walls and bottom of the excavation to confirm PCB concentrations were below the Low Occupancy Standards. A total of 8 record samples and one duplicate sample were collected following the initial excavation conducted on April 16, 2014. Four additional confirmation samples were collected from the areas where PCB concentrations exceeded the Low Occupancy Standards and required additional excavation. On May 20, 2014 these areas were over excavated to remove the impacted soil and confirmation samples collected to confirm the results. Duplicate samples were collected on a 10:1 basis for quality control purposes. Documentation of the sampling activities was recorded in a field logbook. The eight locations were located within the limits of the excavation as illustrated in **Figures 3 and 4**.

Soil samples were submitted to a certified laboratory for analyses. All samples were submitted for an expedited turnaround time (48 hour). Samples collected during the RA activities were analyzed for PCBs using EPA Method 8082.

No measureable precipitation occurred during the RA construction activities and no water was observed in the open excavation; therefore, no surface water samples were collected.

In the initial excavation, PCB concentrations exceed the Low Occupancy Standards on 25 mg/kg in four of the eight samples collected. These include the samples SIDE2 (130 mg/kg), SIDE3 (290 mg/kg), SIDE5 (29 mg/kg), and BOTTOM1 (410 mg/kg). These areas were over excavated on May 20, 2014 to remove the remaining impacted soil. PCB concentrations in the confirmation samples collected from the areas of over excavation were below the Low Occupancy Standards on 25 mg/kg in all three of the samples collected (PCB <0.017 to 0.024 mg/kg). The north extent of the excavation terminated at the property line. Mile Rail was unable to acquire the necessary right of entry agreement from the property owner to extend the excavation beyond that point; therefore, no additional confirmation samples were collected at sample location SIDE 3. The results of the confirmation sampling are summarized in **Table 2** and illustrated in **Figures 3 and 4**. Laboratory reports are provided in **Appendix B**.

### **3.1.5 Site Restoration**

The excavation was backfilled with clean soil from an off-site borrow source once all impacted materials had been removed and confirmed by analytical data. Approximately 144 cy of soil were transported to the Site to fill in the area of excavation. On April 10, 2014, a confirmation sample collected at the borrow source to confirm the soil was free of PCBs. No PCBs were detected in the soil sample. Analytical results are provided in **Appendix B**.

Plastic sheet was placed on the north extent of the excavation at the property line where residual PCB contamination remained. Soil was initially dumped on the west extent of the work area and distributed in place using a CAT 320 excavator to restore the site to near original grade. The soil was placed in 6-inch lifts and compacted in place using the excavation bucket and tracks to minimize potential future settling. The soil fill was graded to match the existing grade on the west extent of the Site and sloped to the north, east, and south to match the adjacent respective grades and promote drainage. Grading activities are documented in photographs provided in **Appendix A**.

### **3.1.6 Groundwater Sampling**

On May 21, 2014, groundwater samples were collected from two locations to evaluate the potential impact to the underlying aquifer. Sample GW-1 was located on the southwest extent of the excavation and Sample GW-2 was located on the northeast extent of the excavation adjacent to the UP property. The two discrete groundwater samples were collected by advancing a SP15 groundwater sampler to the target depth using a Geoprobe™ rig. The first probe was advanced to a total depth of 28 feet bgs at location GW-1. Insufficient water was encountered to obtain the required sample volume; therefore, a temporary piezometer was installed in the probe hole. No measureable quantities of water were observed in the temporary piezometer set at 28 feet bgs. Temporary piezometers were then set at GW-1 and GW-2 to a total depth of 30 feet bgs. A sufficient quantity of water was available at this depth to collect the required sample volume at both locations. Groundwater and sediment were purged from the piezometer to provide a representative sample prior to sample collection. Filtered and non-filter groundwater samples were collected at each location and submitted to a certified laboratory for analyses. All samples were submitted for a standard 14 day turnaround time. Groundwater samples collected during the RA activities were analyzed for PCBs using EPA Method 8082. PCB concentrations in the groundwater samples collected at GW-1 and GW-2 were below the analytical detection limit of 0.5 ug/L. The results of the groundwater sampling are summarized in **Table 2** and illustrated in **Figures 4**.

### **3.1.7 Off-Site Access**

Soil samples collected along the north property line indicated that PCBs have migrated onto the adjacent property owned by the Union Pacific Rail Road Company (UP). The UP was notified that PCBs have migrated onto their property in the vicinity of Mile Post 277.3, K.C Metro (Neff Yard), in Kansas City, Missouri. The UP subsequently issued Folder No.2842-48 for the Right-of-Entry application.

The Work Plan Addendum dated November 6, 2013 was prepared and approved by the EPA on November 11, 2013 to characterize the northern extent of the PCB plume on UP property. The investigation included extending the 1.5 m grid to the northeast and collecting soil samples along the grid and bracketing the interval of identified PCB contamination at the adjacent sample locations. Groundwater samples were to be collected from selected locations based on the results of the soil investigation to determine possible impact to the aquifer.

On December 2, 2013, an Environmental Right-of-Entry agreement application was submitted to the UP to conduct the investigation. UP approved the application and submitted a revised Right-

of-Entry Agreement to Mile Rail on December 20, 2013. On January 17, 2014, UP requested a copy of Mile Rail's certificate of insurance (COI) to process the Environmental Right-of-Entry agreement. A COI is required from the licensee of the agreement to conduct work on the UP property. Mile Rail allowed the insurance for the Site to lapse following the sale of the property and prior to knowledge of the off-site migration of PCB. Mile Rail subsequently tasked an insurance broker to obtain the required insurance. Procurement of the required insurance proved challenging since Mile Rail no longer owned the property. On March 27, 2014, Mile Rail, after exhausting all perceivable options to obtain the required insurance, discontinued their effort to pursue the Right-of-Entry Agreement and resumed efforts towards the onsite RA. A copy of the UP Right-of-Entry Agreement is provided in **Appendix D**.

### 3.2 Schedule

Due to physical limitation accessing the vault and impacted soil, the RA activities were staged pending characterization of the material to determine handling process and disposition. This included characterization and demolition of the vault top, characterization and disposal of the vault contents, and management of the fill material and excavation of the underlying impacted soil. These activities were initiated in March 2013 and completed in May 2014.

A schedule of the site characterization and RAD/RA activities is provided below.

Collected Chip Samples from Vault Top	March 13, 2013
Collected Additional Chip Samples from Vault Top	April 3, 2013
Collected Fill Material Samples	May 21, 2013
Collected Discrete Fill Material Samples at Excavation 2	June 18, 2013
Removed Top of Vault/ Excavated Fill Material	July 30-August 1, 2013
Characterized Extent of PCBs in Soil	August 20, 2013
Removed Contents and Collected Chip Samples from Inside of Vault	October 1, 2013
Submitted application for Right of Entry agreement	December 2, 2013
Submitted signed Right of Entry agreement	December 20, 2013
Rescinded Right of Entry agreement	March 27, 2014
Collected Borrow Source Confirmation Sample	April 10, 2014
Completed RA Construction Activities (Initial)	April 16, 2014
Completed RA Construction Activities (Second)	May 7, 2014

Backfilled Excavation with Soil

May 20, 2014

Collected Groundwater Samples

May 21, 2014

Submitted RA Summary Report

June, 2014

## 4.0 REFERENCES

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Shaw Environmental, Inc (Shaw), 2013a, PCB Characterization Work Plan, Former GST Steel Facility Site, Kansas City, Missouri, February 12, 2013.

Shaw Environmental, Inc (Shaw), 2013b, Site Specific Health and Safety Plan, Former GST Steel Facility Site, Kansas City, Missouri, March, 2013.

Shaw Environmental, Inc (Shaw), 2013c, Removal Action Plan, Former GST Steel Facility Site, Kansas City, Missouri, July 18, 2013.

Shaw Environmental, Inc (Shaw), 2013d, PCB Characterization Work Plan Addendum, Former GST Steel Facility Site, Kansas City, Missouri, November 6, 2013.

## Tables

**Table 1**  
**Sample Analytical Summary**  
**Former GST Steel Facility**  
**Kansas City, Missouri**

Sample ID	Date Sampled	Excavation	Excavation Depth (ft)	Ground Surface (ft)	Sample Interval (ft)	PCB (mg/kg)
<b>Vault Samples</b>						
Vault Fill	08/01/13	Vault	NA	NA	0-1	1.3
Vault Water	08/01/13	Vault	NA	NA	0-1	0.0372
Vault Chip North	10/01/13	Vault	NA	NA	Surface	2.1
Vault Chip South	10/01/13	Vault	NA	NA	Surface	2
Chip 1	03/13/13	Vault Top	NA	NA	Surface	7.4
Chip 2	03/13/13	Vault Top	NA	NA	Surface	2.1
Chip 3	04/03/13	Concrete Pad	NA	NA	Surface	1,100
Chip 4	04/03/13	Concrete Pad	NA	NA	Surface	99
Chip 5	04/03/13	Concrete Pad	NA	NA	Surface	10
Chip 6	04/03/13	Concrete Pad	NA	NA	Surface	42
<b>Confirmation Samples</b>						
CS-113W	08/01/13	Excavation 1	5.5	ND	0-1	<0.025
CS-112W	08/01/13	Excavation 1	5.5	ND	0-1	1.2
CS-108	08/01/13	Excavation 1	5.5	ND	0-1	3.6
CS-117	08/01/13	Excavation 1	5.5	ND	0-1	0.44
CS-101S	08/01/13	Excavation 4	4	6.6	0-1	230
CS-102	08/01/13	Excavation 2	10	6.93	0-1	22
CS-102E	08/01/13	Excavation 2	10	7.07	0-1	0.25
CS-110N	08/01/13	Excavation 3	3.5	ND	0-1	0.53
CS-105N	08/01/13	Excavation 3	3.5	ND	0-1	0.3
<b>Characterization Samples</b>						
CS-301	08/20/13	Southeast	4	4.51	6-8	0.11
					8-10	0.18
					10-12	NT
					14-16	NT
CS-302	08/20/13	Excavation 4	4	4.7	6-8	0.16
					8-10	0.4
					10-12	NT
					14-16	0.15
CS-303	08/20/13	Southeast	10	5.07	12-14	NT
					14-16	0.99
					16-18	NT
					18-20	NT
CS-304	08/20/13	Excavation 2	10	6.75	12-14	0.17
					16-18	0.65
					20-22	0.25
					24-26	NT
					28-30	NT
CS-305	08/20/13	Excavation 2	10	6.87	12-14	50
					16-18	3.6
					20-22	0.014
					24-26	NT
					28-30	NT
CS-306	08/20/13	Northeast	10	4.19	12-14	NT
					16-18	0.056
					20-22	NT
					24-26	NT
					28-30	NT
CS-307	08/20/13	Northeast	10	4.39	12-14	0.18
					16-18	260
					20-22	740
					24-26	0.04
					28-30	15
CS-308	08/20/13	Northeast	10	3.49	12-14	NT
					16-18	0.057
					20-22	0.015
					24-26	NT
					28-30	NT
CS-309	08/20/13	Northeast	10	---	12-14	NT
					16-18	NT
					20-22	NT
					24-26	NT
					28-30	NT
CS-102	08/20/13	Excavation 2	10	6.93	10-12	2.4
					14-16	0.29
					17-19	NT
CS-102E (202)	08/20/13	Excavation 2	10	7.07	10-12	0.15
					14-16	580
					17-19	0.013
CS-101S	08/20/13	Excavation 4	4	6.6	4-6	8.4
					6-8	NT
					10-12	0.55
CS-117	08/20/13	Southeast	5.5	6.21	6-8	NT
					8-10	0.032
					10-12	NT
CS-121	08/20/13	Southeast	3.64	3.64	4-6	0.54
					6-8	NT
					8-10	NT
					10-12	NT

Note:

NT - Not Tested

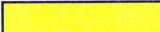
ND - Not Determined


Sample depths referenced from top of pad in feet.

  Exceeded 25 mg/kg of PCBs

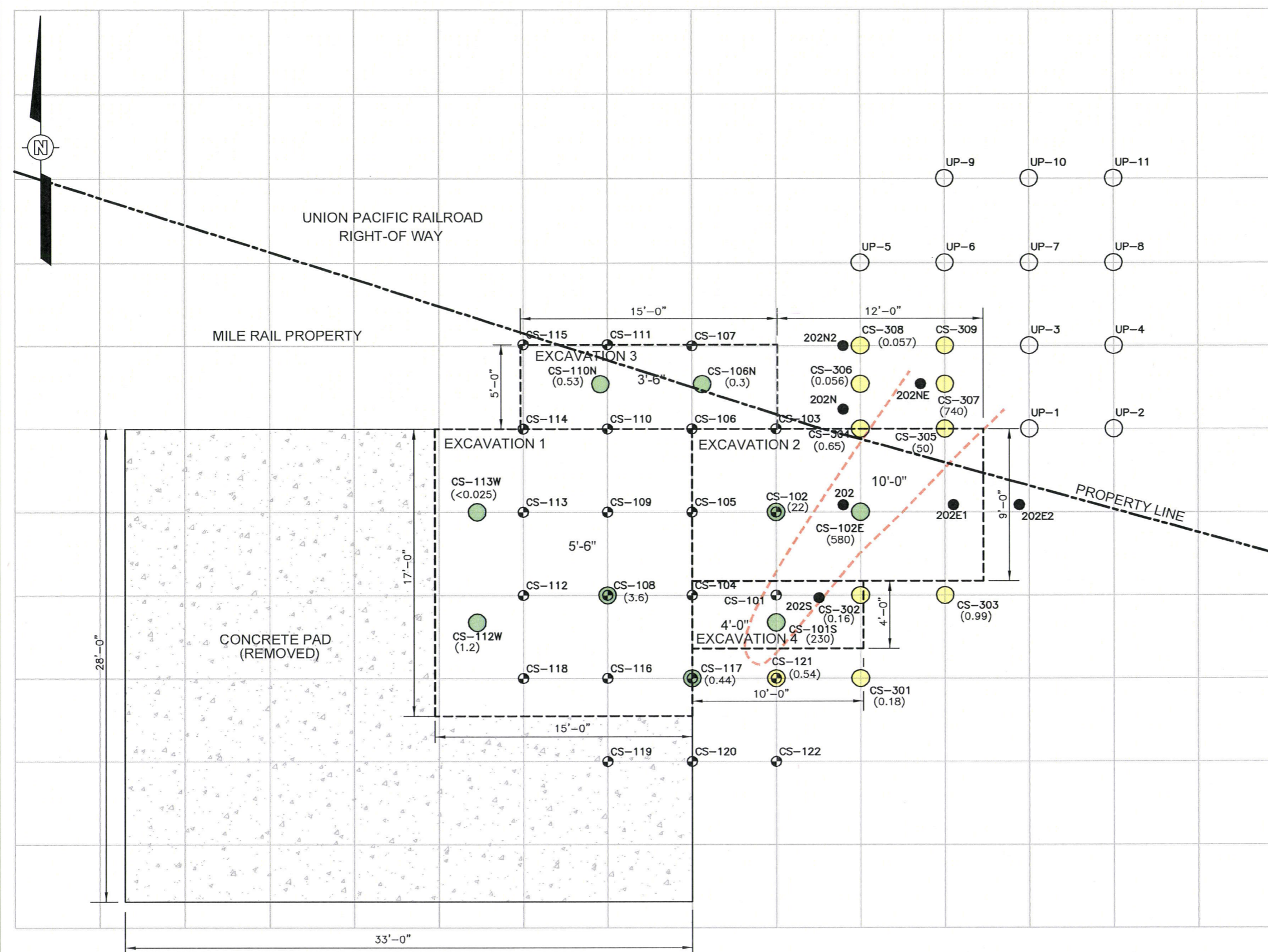
**Table 2**  
**Confirmation Sample Summary**  
**Former GST Steel Facility**  
**Kansas City, Missouri**

Sample ID	Sample Date	Ground Surface (ft)	Media	PCB - Aroclor 1260	Unit
<b>Soil Confirmation Samples</b>					
SIDE1	4/16/2014	8-9'	Soil	0.71	mg/kg
SIDE2	4/16/2014	8-9'	Soil	130	mg/kg
SIDE3	4/16/2014	8-9'	Soil	290	mg/kg
SIDE4	4/16/2014	8-9'	Soil	NS	mg/kg
SIDE5	4/16/2014	8-9'	Soil	29	mg/kg
SIDE6	4/16/2014	8-9'	Soil	14	mg/kg
SIDE7	4/16/2014	8-9'	Soil	14	mg/kg
BOTTOM1	4/16/2014	10.5-11'	Soil	410	mg/kg
BOTTOM2	4/16/2014	10.5-11'	Soil	22	mg/kg
SIDE8	5/7/2014	8-9'	Soil	<0.017	mg/kg
SIDE9	5/7/2014	2-2.5'	Soil	<0.017	mg/kg
BOTTOM3	5/7/2014	11.5-12'	Soil	0.024	mg/kg
<b>Groundwater Confirmation Samples</b>					
GW-1	5/21/2014	26-30'	Groundwater	<0.5	ug/L
GW-2	5/21/2014	26-30'	Groundwater	<0.5	ug/L


 Exceeded Low Occpancy Limit of 25 mg/Kg. Required over excavation.

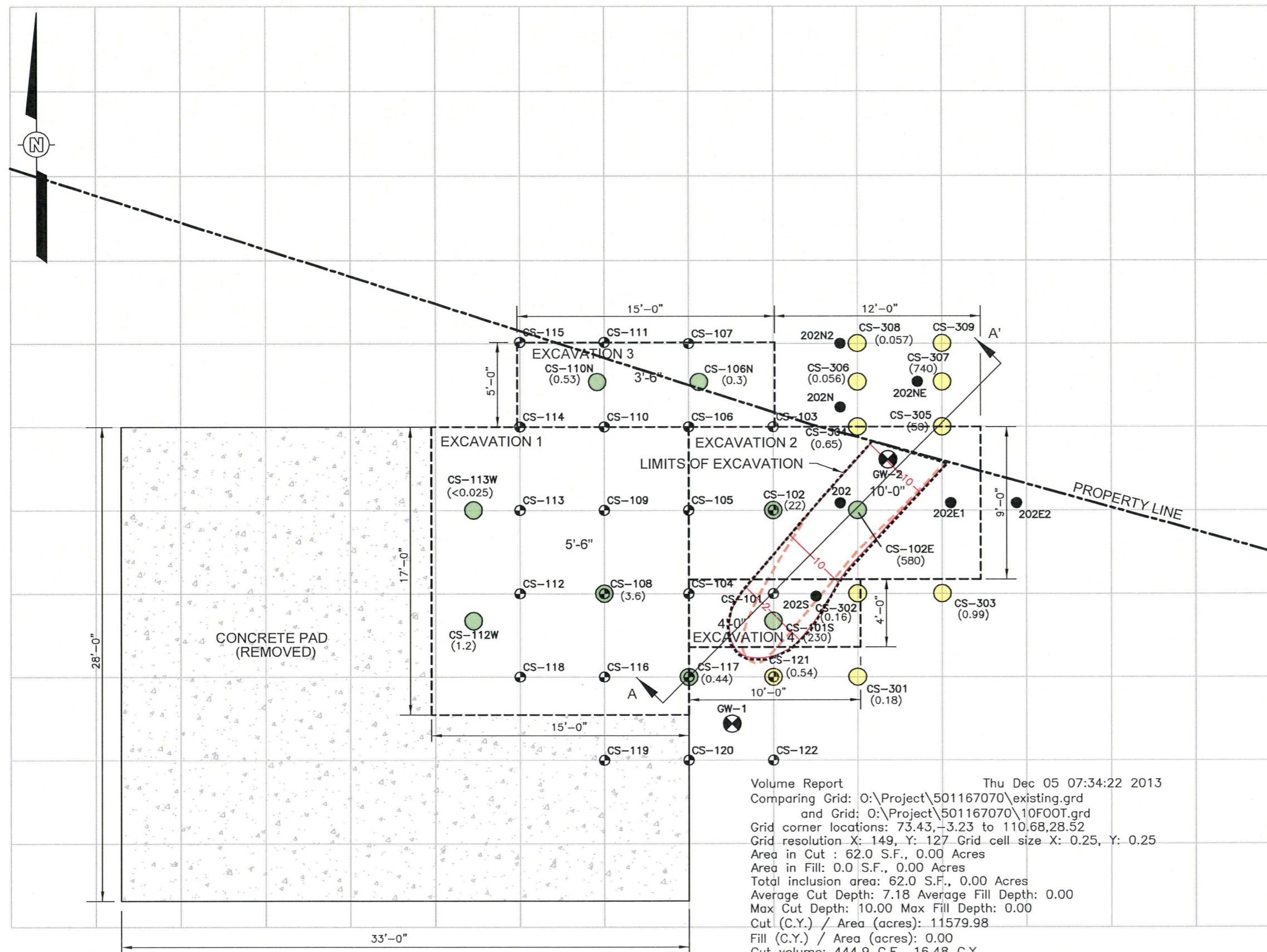
 Exceeded Low Occpancy Limit of 25 mg/Kg at property line.

## Figures



- LEGEND:**
- PREVIOUS SAMPLE LOCATION
  - CONFORMATION SAMPLE, PCB CONCENTRATION IN mg/kg
  - CHARACTERIZATION SAMPLE, PCB CONCENTRATION IN mg/kg
  - PROPOSED OFF SITE CHARACTERIZATION SAMPLE
  - - - PCB CONCENTRATION IN SOIL >25 mg/kg

	CB&I Environmental & Infrastructure, Inc. 11206 Thompson Avenue Lenexa, KS 66219
	MILE RAIL, LLC KANSAS CITY, MISSOURI
	<p align="center"><b>FIGURE1</b></p> <p align="center"><b>MAXIMUM PCB CONCENTRATIONS IN SOIL</b></p> <p align="center">FORMER GST STEEL KANSAS CITY, MISSOURI</p>



LEGEND:

- ⊕ PREVIOUS SAMPLE LOCATION
- CONFORMATION SAMPLE, PCB CONCENTRATION IN mg/kg
- CHARACTERIZATION SAMPLE, PCB CONCENTRATION IN mg/kg
- ⊗ PROPOSED GROUNDWATER SAMPLE
- - - - - PCB CONCENTRATION IN SOIL >25 mg/kg
- - - - - PROPOSED EXCAVATION CONTOUR (DEPTH BELOW GROUND SURFACE)
- - - - - PROPOSED LIMIT OF EXCAVATION



CB&I Environmental & Infrastructure, Inc.  
 11206 Thompson Avenue  
 Lenexa, KS 66219

MILE RAIL, LLC  
 KANSAS CITY, MISSOURI

FIGURE 2  
 LIMITS OF EXCAVATION - BOTTOM  
 MAXIMUM PCB CONCENTRATIONS IN SOIL  
 FORMER GST STEEL  
 KANSAS CITY, MISSOURI

REFERENCE:

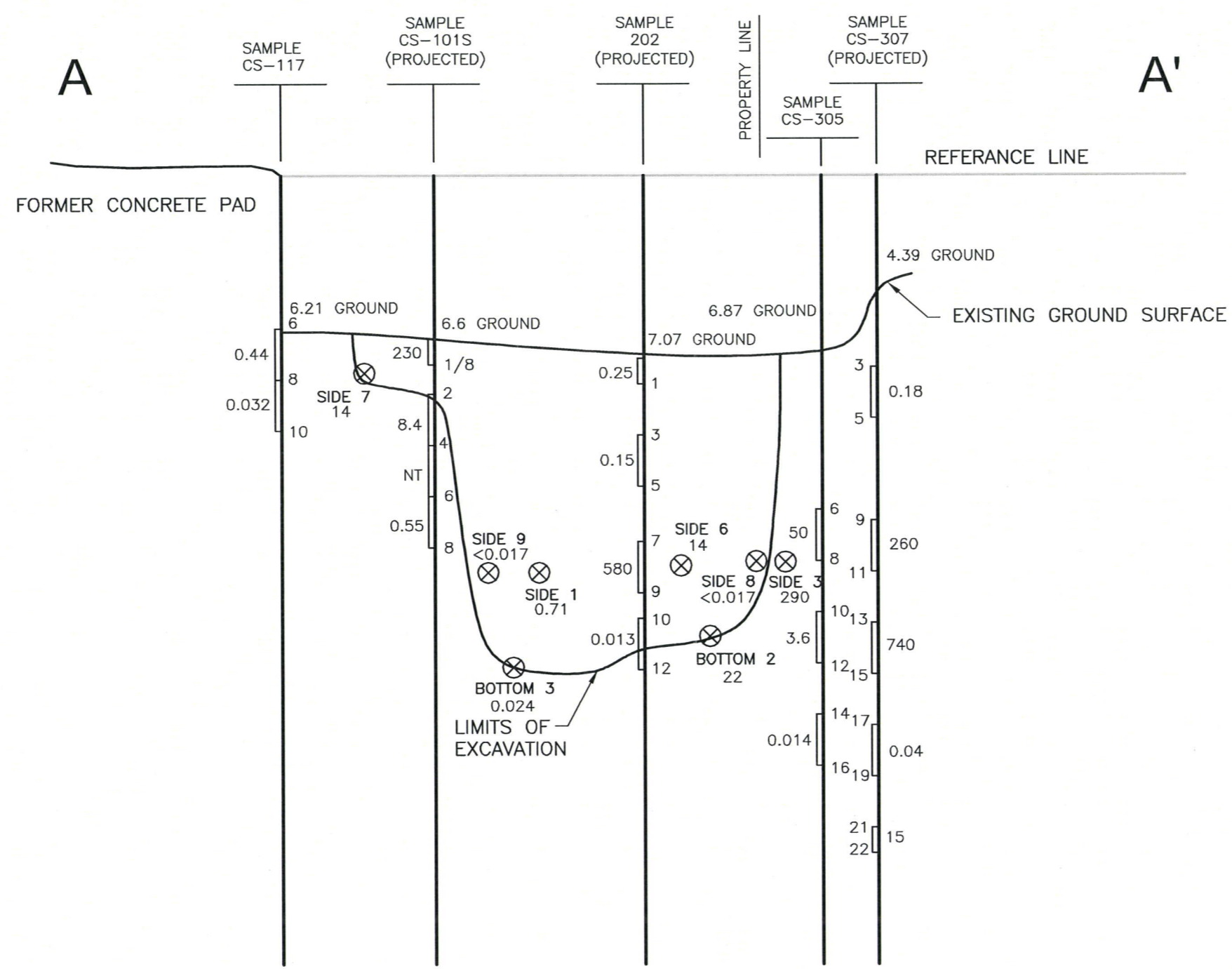
REFERENCE ALL DRAWINGS FROM OTHER SOURCES HERE.





DRAWING NUMBER	501167070-B11
APPROVED BY	--
CHECKED BY	--
DRAWN BY	--
DESIGNED BY	--
DATE	--/--


File: O:\Project\501167070\501167070-B11.dwg  
 User: greg.jones Jul 03, 2014 - 10:14am Layout: Layout1-11 x 17



**LEGEND:**  
 ⊗ CONFORMATION SAMPLE PCB CONCENTRATION IN mg/kg



**REFERENCE:**  
 REFERENCE ALL DRAWINGS FROM OTHER SOURCES HERE.

	CB&I Environmental & Infrastructure, Inc. 11206 Thompson Avenue Lenexa, KS 66219
	MILE RAIL, LLC KANSAS CITY, MISSOURI
	<b>FIGURE 5</b> <b>EXCAVATION CROSS SECTION</b> FORMER GST STEEL KANSAS CITY, MISSOURI

## **Appendices**

**Appendix A**  
**Photographic Log**

## Photographic Documentation



**Location:** Former GST Steel Site  
Kansas City, MO

**Shaw Project Number:** 148313

**Photographer:** Mark Finney

**Client:** Mile Rail, LLC

**Date:** 3/21/2013

**Description:** Photo 1  
Concrete Pad

**Direction:** East



**Description:** Photo 2  
Sample Area

**Direction:** North



## Photographic Documentation



**Location:** Former GST Steel Site  
Kansas City, MO

**Shaw Project Number:** 148313  
**Photographer:** Mark Finney

**Client:** Mile Rail, LLC  
**Date:** 3/21/2013

**Description:** Photo 3  
Chip Sample 1

**Direction:** North



**Description:** Photo 4  
Chip Sample 2

**Direction:** North



**Location:** Former GST Steel Site  
Kansas City, MO

**Shaw Project Number:** 148313

**Photographer:** Mark Finney

**Client:** Mile Rail, LLC  
**Date:** 4/03/2013

**Description:** Photo 5  
Top of Vault

**Direction:** East



**Description:** Photo 6  
Chip Samples 3, 4, & 5

**Direction:** North



## Photographic Documentation



**Location:** Former GST Steel Site  
Kansas City, MO

**Shaw Project Number:** 148313

**Photographer:** Mark Finney

**Client:** Mile Rail, LLC  
**Date:** 4/03/2013

**Description:** Photo 7  
Chip Sample 6

**Direction:** East



**Description:** Photo 8  
Chip Samples 4-6

**Direction:** West



**Location:** Former GST Steel Site  
Kansas City, MO

**Shaw Project Number:** 148313  
**Photographer:** Mark Finney

**Client:** Mile Rail, LLC  
**Date:** 5/21/2013

**Description:** Photo 9  
Fill Material Samples

**Direction:** East



**Description:** Photo 10  
Fill Material Samples

**Direction:** North



## *Photographic Documentation*

---



**Location:** Former GST Steel Site  
Kansas City, MO

**Shaw Project Number:** 148313  
**Photographer:** Mark Finney

**Client:** Mile Rail, LLC  
**Date:** 8/02/2013

**Description:** Photo 11  
Concrete Pad

**Direction:** East



**Description:** Photo 12  
Concrete Breaker

**Direction:** Southeast



**Location:** Former GST Steel Site  
Kansas City, MO

**Shaw Project Number:** 148313  
**Photographer:** Mark Finney

**Client:** Mile Rail, LLC  
**Date:** 8/02/2013

**Description:** Photo 13  
Cutting Rebar

**Direction:** East



**Description:** Photo 14  
Top of Vault

**Direction:** East



## Photographic Documentation

---



**Location:** Former GST Steel Site  
Kansas City, MO

**Shaw Project Number:** 148313

**Photographer:** Mark Finney

**Client:** Mile Rail, LLC  
**Date:** 8/02/2013

**Description:** Photo 15  
Broken Pad

**Direction:** East



**Description:** Photo 16  
Truck Loading Area

**Direction:** East



## Photographic Documentation



**Location:** Former GST Steel Site  
Kansas City, MO

**Shaw Project Number:** 148313  
**Photographer:** Mark Finney

**Client:** Mile Rail, LLC  
**Date:** 8/02/2013

**Description:** Photo 17  
Vault Contents

**Direction:** Down/East



**Description:** Photo 18  
Concrete Vault

**Direction:** South



## Photographic Documentation



**Location:** Former GST Steel Site  
Kansas City, MO

**Shaw Project Number:** 148313  
**Photographer:** Mark Finney

**Client:** Mile Rail, LLC  
**Date:** 8/02/2013

**Description:** Photo 19  
Excavation

**Direction:** West



**Description:** Photo 20  
Excavation

**Direction:** West



**Location:** Former GST Steel Site  
Kansas City, MO

**Shaw Project Number:** 148313

**Photographer:** Mark Finney

**Client:** Mile Rail, LLC  
**Date:** 4/16/2014

**Description:** Photo 21  
Soil Excavation

**Direction:** East



**Description:** Photo 22  
Loading Trucks

**Direction:** West



## ***Photographic Documentation***

---



**Location:** Former GST Steel Site  
Kansas City, MO

**Shaw Project Number:** 148313

**Photographer:** Mark Finney

**Client:** Mile Rail, LLC  
**Date:** 4/16/2014

**Description:** Photo 23  
Open Excavation

**Direction:** South



**Description:** Photo 24  
Security Fence

**Direction:** East



**Location:** Former GST Steel Site  
Kansas City, MO

**Shaw Project Number:** 148313  
**Photographer:** Mark Finney

**Client:** Mile Rail, LLC  
**Date:** 5/07/2014

**Description:** Photo 25  
Safety Fence, Previous  
Excavation

**Direction:** East



**Description:** Photo 26  
Safety Fence, Previous  
Excavation

**Direction:** East



## Photographic Documentation



**Location:** Former GST Steel Site  
Kansas City, MO

**Shaw Project Number:** 148313

**Photographer:** Mark Finney

**Client:** Mile Rail, LLC  
**Date:** 5/07/2013

**Description:** Photo 27  
Loading Trucks

**Direction:** South



**Description:** Photo 28  
Open Excavation

**Direction:** West



**Location:** Former GST Steel Site  
Kansas City, MO

**Shaw Project Number:** 148313  
**Photographer:** Mark Finney

**Client:** Mile Rail, LLC  
**Date:** 5/20/2013

**Description:** Photo 29  
Plastic at End of  
Excavation

**Direction:** Northeast



**Description:** Photo 30  
Backfill in Vault

**Direction:** South



## Photographic Documentation

---



**Location:** Former GST Steel Site  
Kansas City, MO

**Shaw Project Number:** 148313  
**Photographer:** Mark Finney

**Client:** Mile Rail, LLC  
**Date:** 5/20/2013

**Description:** Photo 31  
Backfilling Excavation

**Direction:** East



**Description:** Photo 32  
Excavation backfilled

**Direction:** East



**Location:** Former GST Steel Site  
Kansas City, MO

**Shaw Project Number:** 148313

**Photographer:** Mark Finney

**Client:** Mile Rail, LLC  
**Date:** 5/21/2014

**Description:** Photo 33  
Sample GW-2 Location

**Direction:** Northeast



**Description:** Photo 34  
Sample GW-1 Location

**Direction:** Northeast



**Appendix B**  
**Laboratory Reports**



10450 Standcliff Rd. Suite 210  
Houston, TX 77099  
T: +1 281 530 5656  
F: +1 281 530 5887  
[www.alsglobal.com](http://www.alsglobal.com)

April 22, 2014

Mark Finney  
CB&I - Lexana  
11206 Thompson Avenue  
Lenexa, KS 66219

Work Order: **HS14040610**

Laboratory Results for: **Former GST Steele PCB - 148313**

Dear Mark,

ALS Environmental received 1 sample(s) on Apr 10, 2014 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

A handwritten signature in black ink that reads "Bethany McDaniel".

Generated By: bethany.McDaniel  
Bethany McDaniel  
Project Manager

**Client:** CB&I - Lexana  
**Project:** Former GST Steele PCB - 148313  
**Work Order:** HS14040610

**SAMPLE SUMMARY**

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS14040610-01	Borrow Soil	Soil		10-Apr-2014 09:45	10-Apr-2014 09:25	<input type="checkbox"/>

**Client:** CB&I - Lexana  
**Project:** Former GST Steele PCB - 148313  
**Work Order:** HS14040610

**CASE NARRATIVE**

Client: CB&I - Lexana  
Project: Former GST Steele PCB - 148313  
Sample ID: Borrow Soil  
Collection Date: 10-Apr-2014 09:45

**ANALYTICAL REPORT**

WorkOrder: HS14040610  
Lab ID: HS14040610-01  
Matrix: Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
PCBS BY SW8082A	Method: SW8082					Analyst: SE
Aroclor 1016	ND		17	ug/Kg	1	18-Apr-2014 15:05
Aroclor 1221	ND		17	ug/Kg	1	18-Apr-2014 15:05
Aroclor 1232	ND		17	ug/Kg	1	18-Apr-2014 15:05
Aroclor 1242	ND		17	ug/Kg	1	18-Apr-2014 15:05
Aroclor 1248	ND		17	ug/Kg	1	18-Apr-2014 15:05
Aroclor 1254	ND		17	ug/Kg	1	18-Apr-2014 15:05
Aroclor 1260	ND		17	ug/Kg	1	18-Apr-2014 15:05
Surr: Decachlorobiphenyl	106		54-143	%REC	1	18-Apr-2014 15:05
Surr: Tetrachloro-m-xylene	76.7		55-137	%REC	1	18-Apr-2014 15:05

Note: See Qualifiers Page for a list of qualifiers and their explanation.

**Client:** CB&I - Lexana  
**Project:** Former GST Steele PCB - 148313  
**WorkOrder:** HS14040610

**DATES REPORT**

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
<b>Batch ID</b> 80803a	<b>Test Name :</b> PCBS BY SW8082A		<b>Matrix:</b> Soil			
HS14040610-01	Borrow Soil	10 Apr 2014 09:45		16 Apr 2014 10:10	18 Apr 2014 15:05	1

Client: CB&I - Lexana  
 WorkOrder: HS14040610  
 Project: Former GST Steele PCB - 148313

## QC BATCH REPORT

Batch ID: 80803a	Instrument: ECD_7	Method: SW8082
------------------	-------------------	----------------

MBLK	Sample ID: PBLKS2-140416	Units: ug/Kg	Analysis Date: 18-Apr-2014 12:19							
Client ID:	Run ID: ECD_7_232303	SeqNo: 2802983	PrepDate: 16-Apr-2014	DF: 1						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	ND	17								
Aroclor 1221	ND	17								
Aroclor 1232	ND	17								
Aroclor 1242	ND	17								
Aroclor 1248	ND	17								
Aroclor 1254	ND	17								
Aroclor 1260	ND	17								
Surr: Decachlorobiphenyl	6.72	1.6	6.667	0	101	54 - 143				
Surr: Tetrachloro-m-xylene	6.115	1.6	6.667	0	91.7	55 - 137				

LCS	Sample ID: PLCSS2-140416	Units: ug/Kg	Analysis Date: 18-Apr-2014 12:34							
Client ID:	Run ID: ECD_7_232303	SeqNo: 2802984	PrepDate: 16-Apr-2014		DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	167.1	17	166.7	0	100	53 - 135				
Aroclor 1260	181.3	17	166.7	0	109	54 - 137				
Surr: Decachlorobiphenyl	7.889	1.6	6.667	0	118	54 - 143				
Surr: Tetrachloro-m-xylene	6.907	1.6	6.667	0	104	55 - 137				

MS	Sample ID: HS14040469-01MS	Units: ug/Kg	Analysis Date: 18-Apr-2014 11:48							
Client ID:	Run ID: ECD_7_232303	SeqNo: 2802981	PrepDate: 16-Apr-2014		DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	169.2	17	166.5	0	102	53 - 135				
Aroclor 1260	181.9	17	166.5	0	109	54 - 137				
Surr: Decachlorobiphenyl	7.465	1.6	6.658	0	112	54 - 143				
Surr: Tetrachloro-m-xylene	6.569	1.6	6.658	0	98.7	55 - 137				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: CB&I - Lexana  
WorkOrder: HS14040610  
Project: Former GST Steele PCB - 148313

## QC BATCH REPORT

Batch ID: 80803a Instrument: ECD\_7 Method: SW8082

MSD	Sample ID: HS14040469-01MSD				Units: ug/Kg		Analysis Date: 18-Apr-2014 12:03			
Client ID:	Run ID: ECD_7_232303				SeqNo: 2802982		PrepDate: 16-Apr-2014		DF: 1	
Analyte	Result	PQL SPK Val		SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	178.3	17	166.5	0	107	53 - 135	169.2	5.21	30	
Aroclor 1260	185.4	17	166.5	0	111	54 - 137	181.9	1.91	30	
Surr: Decachlorobiphenyl	7.971	1.6	6.658	0	120	54 - 143	7.465	6.56	30	
Surr: Tetrachloro-m-xylene	7.03	1.6	6.658	0	106	55 - 137	6.569	6.78	30	

The following samples were analyzed in this batch: HS14040610-01

Note: See Qualifiers Page for a list of qualifiers and their explanation.

**Client:** CB&I - Lexana  
**Project:** Former GST Steele PCB - 148313  
**WorkOrder:** HS14040610

**QUALIFIERS,  
ACRONYMS, UNITS**

<b>Qualifier</b>	<b>Description</b>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<b>Acronym</b>	<b>Description</b>
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution

<b>Unit Reported</b>	<b>Description</b>
µg/Kg	Micrograms per Kilogram

**CERTIFICATIONS, ACCREDITATIONS & LICENSES**

Agency	Number	Expire Date
Arkansas	AR - 2014	27-Mar-2015
California	06248CA 2013-2014	31-Jul-2014
Dept of Defense	L2231 Rev 3-20-2014	22-Dec-2015
Illinois	003180	09-May-2014
Kansas	E-10352 8/15/2013-2014	31-Jul-2014
Kentucky	95 Year- 2013	30-Apr-2014
Louisiana	03087 2013/2014	30-Jun-2014
North Carolina	624 - 2014	31-Dec-2014
Oklahoma	2013-024	31-Aug-2014
Texas	T104704231-13-12	30-Apr-2014

**Client:** CB&I - Lexana  
**Project:** Former GST Steele PCB - 148313  
**Work Order:** HS14040610

**SAMPLE TRACKING**

Lab Samp ID	Client Sample ID	Action	Date	Person	New Location
HS14040610-01	Borrow Soil	Login	14-Apr-14 03:19	DRC	13D



**Environmental**

Cincinnati, OH  
+1 513 733 5336

Everett, WA  
+1 425 356 2600

Fort Collins, CO  
+1 970 490 1511

Holland, MI  
+1 616 399 6070

# Chain of Custody Form

Page 1 of 1

COC ID: 92946

Houston, TX  
+1 281 530 5656

Middletown, PA  
+1 717 944 5341

Spring City, PA  
+1 610 948 4903

Salt Lake City, UT  
+1 801 266 7700

South Charleston, WV  
+1 304 356 3168

York, PA  
+1 717 505 5280

Customer Information		Project Information		Parameter/Method Request for Analysis												
Purchase Order		Project Name	Former GST Steele	A	PCB-8082											
Work Order		Project Number	148313	B												
Company Name	CB&I - Lexana	Bill To Company	C B&I Government Solutions, Inc	C												
Send Report To	Mark Finney	Invoice Attn	A/P	D												
Address	11206 Thompson Avenue	Address	8116 Wilson Road	E												
City/State/Zip	Lenexa, KS 66219	City/State/Zip	Kansas City, MO 64125	F												
Phone	(913) 317-3591	Phone		G												
Fax		Fax		H												
e-Mail Address	mark.finney@cbl.com	e-Mail Address	ap.invoices@cbl.com	I												
				J												

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	Borrow Soil	4-10-14	0945	Soil	8	1	X										
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign <i>Shane Brunsard</i>		Shipment Method <i>Fed-Ex</i>		Required Turnaround Time: (Check Box) <input checked="" type="checkbox"/> Std 10 WK Days <input checked="" type="checkbox"/> 5 WK Days <input type="checkbox"/> Other <input type="checkbox"/> 2 WK Days <input type="checkbox"/> 24 Hour				Results Due Date: <i>4/18/14</i>		
Relinquished by: <i>SB</i>	Date: <i>4-10-14</i>	Time: <i>1100</i>	Received by: <i>[Signature]</i>		Notes:					
Relinquished by:	Date: <i>4-11-14</i>	Time: <i>9:25</i>	Received by (Laboratory):		Cooler ID	Cooler Temp	QC Package: (Check One Box Below)			
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):				<input checked="" type="checkbox"/> Level II Std QC <input type="checkbox"/> TRRP Checklist <input type="checkbox"/> Level III Std QC/Raw Data <input type="checkbox"/> TRRP Level IV <input type="checkbox"/> Level IV SW846/CLP <input type="checkbox"/> Other / EDD			
Preservative Key: 1-HCl 2-HNO <sub>3</sub> 3-H <sub>2</sub> SO <sub>4</sub> 4-NaOH 5-Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> 6-NaHSO <sub>4</sub> 7-Other 8-4°C 9-5035										

- Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.  
 2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.  
 3. The Chain of Custody is a legal document. All information must be completed accurately.

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TRK 8052 9842 3857  
0215

FRI - 11 APR 10:30  
PRIORITY OVERNIGHT

NC SGRA

77099  
TX-US IAH



 **ALS Enuir**  
10450 Stencil Rd  
Houston, Texas 77  
Tel. +1 281 530 58  
Fax. +1 281 530 51

RT **917**  
FZ **B03**

**CUSTODY SEAL**

Date: 4-10-14 Time: \_\_\_\_\_  
Name: Shane Pryor  
Company: CB&I

Seal Broken By:

MS  
Date: 4/9/14



21-Apr-2014

Mark Finney  
CB&I Government Solutions, Inc.  
11206 Thompson Ave.  
Lenexa, KS 66219

Re: **Former GST Steele 148313**

Work Order: **1404964**

Dear Mark,

ALS Environmental received 10 samples on 18-Apr-2014 10:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Sample results are compliant with NELAP standard requirements and QC results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 20.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

**Chad Whelton**

Electronically approved by: Chad Whelton

Chad Whelton  
Project Manager



Certificate No: MN 532786

### Report of Laboratory Analysis

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185

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RIGHT SOLUTIONS RIGHT PARTNER

**Client:** CB&I Government Solutions, Inc.  
**Project:** Former GST Steele 148313  
**Work Order:** 1404964

## Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1404964-01	Side 1	Soil		4/16/2014 14:25	4/18/2014 10:00	<input type="checkbox"/>
1404964-02	Side 2	Soil		4/16/2014 14:30	4/18/2014 10:00	<input type="checkbox"/>
1404964-03	Side 3	Soil		4/16/2014 14:35	4/18/2014 10:00	<input type="checkbox"/>
1404964-04	Side 4	Soil		4/16/2014 14:40	4/18/2014 10:00	<input checked="" type="checkbox"/>
1404964-05	Side 5	Soil		4/16/2014 14:45	4/18/2014 10:00	<input type="checkbox"/>
1404964-06	Side 6	Soil		4/16/2014 14:50	4/18/2014 10:00	<input type="checkbox"/>
1404964-07	Bottom 1	Soil		4/16/2014 14:15	4/18/2014 10:00	<input type="checkbox"/>
1404964-08	Bottom 2	Soil		4/16/2014 14:20	4/18/2014 10:00	<input type="checkbox"/>
1404964-09	Duplicate	Soil		4/16/2014	4/18/2014 10:00	<input type="checkbox"/>
1404964-10	Side 7	Soil		4/16/2014 14:55	4/18/2014 10:00	<input type="checkbox"/>

## ALS Group USA, Corp

Date: 21-Apr-14

**Client:** CB&I Government Solutions, Inc.

**Project:** Former GST Steele 148313

**Work Order:** 1404964

### Case Narrative

Batch 57692, Method PCB\_8082\_S, Sample 1404964-03A: Elevated levels of aroclor 1260 in sample caused high recovery for DCB.

Batch 57692, Method PCB\_8082\_S, Sample 1404964-07A: Elevated levels of aroclor 1260 in sample caused high recovery for DCB.

**Client:** CB&I Government Solutions, Inc.  
**Project:** Former GST Steele 148313  
**WorkOrder:** 1404964

**QUALIFIERS,  
ACRONYMS, UNITS**

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<u>Acronym</u>	<u>Description</u>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

<u>Units Reported</u>	<u>Description</u>
% of sample	Percent of Sample
µg/Kg-dry	Micrograms per Kilogram Dry Weight

# ALS Group USA, Corp

Date: 21-Apr-14

Client: CB&I Government Solutions, Inc.

Project: Former GST Steele 148313

Sample ID: Side 1

Collection Date: 4/16/2014 02:25 PM

Work Order: 1404964

Lab ID: 1404964-01

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>PCBS</b>						
			<b>SW8082</b>		Prep: SW3541 / 4/18/14	Analyst: JD
Aroclor 1016	U		120	µg/Kg-dry	1	4/18/2014 07:14 PM
Aroclor 1221	U		120	µg/Kg-dry	1	4/18/2014 07:14 PM
Aroclor 1232	U		120	µg/Kg-dry	1	4/18/2014 07:14 PM
Aroclor 1242	U		120	µg/Kg-dry	1	4/18/2014 07:14 PM
Aroclor 1248	U		120	µg/Kg-dry	1	4/18/2014 07:14 PM
Aroclor 1254	U		120	µg/Kg-dry	1	4/18/2014 07:14 PM
<b>Aroclor 1260</b>	<b>710</b>		<b>120</b>	<b>µg/Kg-dry</b>	<b>1</b>	<b>4/18/2014 07:14 PM</b>
<b>PCBs, Total</b>	<b>720</b>			<b>µg/Kg-dry</b>	<b>1</b>	<b>4/18/2014 07:14 PM</b>
Surr: Decachlorobiphenyl	95.1		40-140	%REC	1	4/18/2014 07:14 PM
Surr: Tetrachloro-m-xylene	90.1		45-124	%REC	1	4/18/2014 07:14 PM
<b>MOISTURE</b>						
			<b>A2540 G</b>			Analyst: AT
<b>Moisture</b>	<b>33</b>		<b>0.050</b>	<b>% of sample</b>	<b>1</b>	<b>4/18/2014 03:07 PM</b>

Note: See Qualifiers page for a list of qualifiers and their definitions.

**ALS Group USA, Corp**
**Date:** 21-Apr-14

**Client:** CB&I Government Solutions, Inc.

**Project:** Former GST Steele 148313

**Work Order:** 1404964

**Sample ID:** Side 2

**Lab ID:** 1404964-02

**Collection Date:** 4/16/2014 02:30 PM

**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>PCBS</b>			<b>SW8082</b>		Prep: SW3541 / 4/18/14	Analyst: <b>JD</b>
Aroclor 1016	U		120	µg/Kg-dry	1	4/18/2014 07:30 PM
Aroclor 1221	U		120	µg/Kg-dry	1	4/18/2014 07:30 PM
Aroclor 1232	U		120	µg/Kg-dry	1	4/18/2014 07:30 PM
Aroclor 1242	U		120	µg/Kg-dry	1	4/18/2014 07:30 PM
Aroclor 1248	U		120	µg/Kg-dry	1	4/18/2014 07:30 PM
Aroclor 1254	U		120	µg/Kg-dry	1	4/18/2014 07:30 PM
<b>Aroclor 1260</b>	<b>130,000</b>		<b>12,000</b>	<b>µg/Kg-dry</b>	100	4/21/2014 12:15 PM
<b>PCBs, Total</b>	<b>130,000</b>			<b>µg/Kg-dry</b>	100	4/21/2014 12:15 PM
Surr: Decachlorobiphenyl	117		40-140	%REC	1	4/18/2014 07:30 PM
Surr: Tetrachloro-m-xylene	97.1		45-124	%REC	1	4/18/2014 07:30 PM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: <b>AT</b>
<b>Moisture</b>	<b>30</b>		<b>0.050</b>	<b>% of sample</b>	1	4/18/2014 03:07 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 21-Apr-14

Client: CB&I Government Solutions, Inc.

Project: Former GST Steele 148313

Work Order: 1404964

Sample ID: Side 3

Lab ID: 1404964-03

Collection Date: 4/16/2014 02:35 PM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>PCBS</b>						
			<b>SW8082</b>		Prep: SW3541 / 4/18/14	Analyst: JD
Aroclor 1016	U		110	µg/Kg-dry	1	4/18/2014 07:46 PM
Aroclor 1221	U		110	µg/Kg-dry	1	4/18/2014 07:46 PM
Aroclor 1232	U		110	µg/Kg-dry	1	4/18/2014 07:46 PM
Aroclor 1242	U		110	µg/Kg-dry	1	4/18/2014 07:46 PM
Aroclor 1248	U		110	µg/Kg-dry	1	4/18/2014 07:46 PM
Aroclor 1254	U		110	µg/Kg-dry	1	4/18/2014 07:46 PM
<b>Aroclor 1260</b>	<b>290,000</b>		<b>11,000</b>	<b>µg/Kg-dry</b>	<b>100</b>	<b>4/21/2014 12:32 PM</b>
<b>PCBs, Total</b>	<b>290,000</b>			<b>µg/Kg-dry</b>	<b>100</b>	<b>4/21/2014 12:32 PM</b>
Surr: Decachlorobiphenyl	143	S	40-140	%REC	1	4/18/2014 07:46 PM
Surr: Tetrachloro-m-xylene	91.1		45-124	%REC	1	4/18/2014 07:46 PM
<b>MOISTURE</b>						
			<b>A2540 G</b>			Analyst: AT
<b>Moisture</b>	<b>28</b>		<b>0.050</b>	<b>% of sample</b>	<b>1</b>	<b>4/18/2014 03:07 PM</b>

Note: See Qualifiers page for a list of qualifiers and their definitions.

**ALS Group USA, Corp**
**Date:** 21-Apr-14

**Client:** CB&I Government Solutions, Inc.

**Project:** Former GST Steele 148313

**Work Order:** 1404964

**Sample ID:** Side 5

**Lab ID:** 1404964-05

**Collection Date:** 4/16/2014 02:45 PM

**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>PCBS</b>			<b>SW8082</b>		Prep: SW3541 / 4/18/14	Analyst: JD
Aroclor 1016	U		110	µg/Kg-dry	1	4/18/2014 08:18 PM
Aroclor 1221	U		110	µg/Kg-dry	1	4/18/2014 08:18 PM
Aroclor 1232	U		110	µg/Kg-dry	1	4/18/2014 08:18 PM
Aroclor 1242	U		110	µg/Kg-dry	1	4/18/2014 08:18 PM
Aroclor 1248	U		110	µg/Kg-dry	1	4/18/2014 08:18 PM
Aroclor 1254	U		110	µg/Kg-dry	1	4/18/2014 08:18 PM
<b>Aroclor 1260</b>	<b>29,000</b>		<b>1,100</b>	<b>µg/Kg-dry</b>	10	4/21/2014 01:04 PM
<b>PCBs, Total</b>	<b>28,000</b>			<b>µg/Kg-dry</b>	10	4/21/2014 01:04 PM
Surr: Decachlorobiphenyl	107		40-140	%REC	1	4/18/2014 08:18 PM
Surr: Tetrachloro-m-xylene	95.1		45-124	%REC	1	4/18/2014 08:18 PM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: AT
<b>Moisture</b>	<b>26</b>		<b>0.050</b>	<b>% of sample</b>	1	4/18/2014 03:07 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**ALS Group USA, Corp**

Date: 21-Apr-14

Client: CB&amp;I Government Solutions, Inc.

Project: Former GST Steele 148313

Work Order: 1404964

Sample ID: Side 6

Lab ID: 1404964-06

Collection Date: 4/16/2014 02:50 PM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>PCBS</b>			<b>SW8082</b>		Prep: SW3541 / 4/18/14	Analyst: JD
Aroclor 1016	U		110	µg/Kg-dry	1	4/18/2014 08:35 PM
Aroclor 1221	U		110	µg/Kg-dry	1	4/18/2014 08:35 PM
Aroclor 1232	U		110	µg/Kg-dry	1	4/18/2014 08:35 PM
Aroclor 1242	U		110	µg/Kg-dry	1	4/18/2014 08:35 PM
Aroclor 1248	U		110	µg/Kg-dry	1	4/18/2014 08:35 PM
Aroclor 1254	U		110	µg/Kg-dry	1	4/18/2014 08:35 PM
Aroclor 1260	14,000		560	µg/Kg-dry	5	4/21/2014 01:20 PM
PCBs, Total	14,000			µg/Kg-dry	5	4/21/2014 01:20 PM
Surr: Decachlorobiphenyl	96.1		40-140	%REC	1	4/18/2014 08:35 PM
Surr: Tetrachloro-m-xylene	89.1		45-124	%REC	1	4/18/2014 08:35 PM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: AT
Moisture	29		0.050	% of sample	1	4/18/2014 03:07 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 21-Apr-14

Client: CB&I Government Solutions, Inc.

Project: Former GST Steele 148313

Work Order: 1404964

Sample ID: Bottom 1

Lab ID: 1404964-07

Collection Date: 4/16/2014 02:15 PM

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>PCBS</b>			<b>SW8082</b>		Prep: SW3541 / 4/18/14	Analyst: JD
Aroclor 1016	U		99	µg/Kg-dry	1	4/18/2014 09:07 PM
Aroclor 1221	U		99	µg/Kg-dry	1	4/18/2014 09:07 PM
Aroclor 1232	U		99	µg/Kg-dry	1	4/18/2014 09:07 PM
Aroclor 1242	U		99	µg/Kg-dry	1	4/18/2014 09:07 PM
Aroclor 1248	U		99	µg/Kg-dry	1	4/18/2014 09:07 PM
Aroclor 1254	U		99	µg/Kg-dry	1	4/18/2014 09:07 PM
<b>Aroclor 1260</b>	<b>400,000</b>		<b>20,000</b>	<b>µg/Kg-dry</b>	<b>200</b>	<b>4/21/2014 01:36 PM</b>
<b>PCBs, Total</b>	<b>410,000</b>			<b>µg/Kg-dry</b>	<b>200</b>	<b>4/21/2014 01:36 PM</b>
Surr: Decachlorobiphenyl	161	S	40-140	%REC	1	4/18/2014 09:07 PM
Surr: Tetrachloro-m-xylene	101		45-124	%REC	1	4/18/2014 09:07 PM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: AT
<b>Moisture</b>	<b>16</b>		<b>0.050</b>	<b>% of sample</b>	<b>1</b>	<b>4/18/2014 03:07 PM</b>

Note: See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 21-Apr-14

Client: CB&I Government Solutions, Inc.

Project: Former GST Steele 148313

Sample ID: Bottom 2

Collection Date: 4/16/2014 02:20 PM

Work Order: 1404964

Lab ID: 1404964-08

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>PCBS</b>			<b>SW8082</b>		Prep: SW3541 / 4/18/14	Analyst: JD
Aroclor 1016	U		110	µg/Kg-dry	1	4/18/2014 09:23 PM
Aroclor 1221	U		110	µg/Kg-dry	1	4/18/2014 09:23 PM
Aroclor 1232	U		110	µg/Kg-dry	1	4/18/2014 09:23 PM
Aroclor 1242	U		110	µg/Kg-dry	1	4/18/2014 09:23 PM
Aroclor 1248	U		110	µg/Kg-dry	1	4/18/2014 09:23 PM
Aroclor 1254	U		110	µg/Kg-dry	1	4/18/2014 09:23 PM
<b>Aroclor 1260</b>	<b>22,000</b>		<b>1,100</b>	<b>µg/Kg-dry</b>	<b>10</b>	<b>4/21/2014 01:52 PM</b>
<b>PCBs, Total</b>	<b>22,000</b>			<b>µg/Kg-dry</b>	<b>10</b>	<b>4/21/2014 01:52 PM</b>
Surr: Decachlorobiphenyl	125		40-140	%REC	1	4/18/2014 09:23 PM
Surr: Tetrachloro-m-xylene	90.1		45-124	%REC	1	4/18/2014 09:23 PM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: AT
Moisture	29		0.050	% of sample	1	4/18/2014 03:07 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

**ALS Group USA, Corp**
**Date:** 21-Apr-14

**Client:** CB&I Government Solutions, Inc.

**Project:** Former GST Steele 148313

**Work Order:** 1404964

**Sample ID:** Duplicate

**Lab ID:** 1404964-09

**Collection Date:** 4/16/2014

**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>PCBS</b>			<b>SW8082</b>		Prep: SW3541 / 4/18/14	Analyst: <b>JD</b>
Aroclor 1016	U		120	µg/Kg-dry	1	4/18/2014 09:39 PM
Aroclor 1221	U		120	µg/Kg-dry	1	4/18/2014 09:39 PM
Aroclor 1232	U		120	µg/Kg-dry	1	4/18/2014 09:39 PM
Aroclor 1242	U		120	µg/Kg-dry	1	4/18/2014 09:39 PM
Aroclor 1248	U		120	µg/Kg-dry	1	4/18/2014 09:39 PM
Aroclor 1254	U		120	µg/Kg-dry	1	4/18/2014 09:39 PM
<b>Aroclor 1260</b>	<b>220,000</b>		<b>12,000</b>	<b>µg/Kg-dry</b>	100	4/21/2014 02:09 PM
<b>PCBs, Total</b>	<b>220,000</b>			<b>µg/Kg-dry</b>	100	4/21/2014 02:09 PM
Surr: Decachlorobiphenyl	128		40-140	%REC	1	4/18/2014 09:39 PM
Surr: Tetrachloro-m-xylene	91.1		45-124	%REC	1	4/18/2014 09:39 PM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: <b>AT</b>
<b>Moisture</b>	<b>30</b>		<b>0.050</b>	<b>% of sample</b>	1	4/18/2014 03:07 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 21-Apr-14

Client: CB&I Government Solutions, Inc.

Project: Former GST Steele 148313

Sample ID: Side 7

Collection Date: 4/16/2014 02:55 PM

Work Order: 1404964

Lab ID: 1404964-10

Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>PCBS</b>						
			<b>SW8082</b>		Prep: SW3541 / 4/18/14	Analyst: JD
Aroclor 1016	U		110	µg/Kg-dry	1	4/18/2014 09:55 PM
Aroclor 1221	U		110	µg/Kg-dry	1	4/18/2014 09:55 PM
Aroclor 1232	U		110	µg/Kg-dry	1	4/18/2014 09:55 PM
Aroclor 1242	U		110	µg/Kg-dry	1	4/18/2014 09:55 PM
Aroclor 1248	U		110	µg/Kg-dry	1	4/18/2014 09:55 PM
Aroclor 1254	U		110	µg/Kg-dry	1	4/18/2014 09:55 PM
<b>Aroclor 1260</b>	<b>14,000</b>		<b>540</b>	<b>µg/Kg-dry</b>	<b>5</b>	<b>4/21/2014 02:25 PM</b>
<b>PCBs, Total</b>	<b>14,000</b>			<b>µg/Kg-dry</b>	<b>5</b>	<b>4/21/2014 02:25 PM</b>
Surr: Decachlorobiphenyl	118		40-140	%REC	1	4/18/2014 09:55 PM
Surr: Tetrachloro-m-xylene	95.1		45-124	%REC	1	4/18/2014 09:55 PM
<b>MOISTURE</b>						
			<b>A2540 G</b>			Analyst: AT
<b>Moisture</b>	<b>27</b>		<b>0.050</b>	<b>% of sample</b>	<b>1</b>	<b>4/18/2014 03:07 PM</b>

Note: See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 21-Apr-14

Client: CB&I Government Solutions, Inc.

Work Order: 1404964

Project: Former GST Steele 148313

## QC BATCH REPORT

Batch ID: 57692

Instrument ID GC14

Method: SW8082

MBLK	Sample ID: PBLKS1-57692-57692				Units: µg/Kg			Analysis Date: 4/18/2014 03:11 PM		
Client ID:	Run ID: GC14_140418A				SeqNo: 2723702		Prep Date: 4/18/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	U	83								
Aroclor 1221	U	83								
Aroclor 1232	U	83								
Aroclor 1242	U	83								
Aroclor 1248	U	83								
Aroclor 1254	U	83								
Aroclor 1260	U	83								
PCBs, Total	U	0								
Surr: Decachlorobiphenyl	32.33	0	33.3	0	97.1	40-140	0			
Surr: Tetrachloro-m-xylene	31.67	0	33.3	0	95.1	45-124	0			

LCS		Sample ID: <b>PLCSS1-57692-57692</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>4/18/2014 03:27 PM</b>		
Client ID:		Run ID: <b>GC14_140418A</b>				SeqNo: <b>2723703</b>		Prep Date: <b>4/18/2014</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	824	83	833		0	98.9	50-130	0		
Aroclor 1260	841.3	83	833		0	101	50-130	0		
<i>Surr: Decachlorobiphenyl</i>	32.67	0	33.3		0	98.1	40-140	0		
<i>Surr: Tetrachloro-m-xylene</i>	31.33	0	33.3		0	94.1	45-124	0		

MS		Sample ID: 1404759-15B MS				Units: µg/Kg		Analysis Date: 4/18/2014 04:16 PM		
Client ID:		Run ID: GC14_140418A				SeqNo: 2723706		Prep Date: 4/18/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	781.8	82	821.2		0	95.2	40-140	0		
Aroclor 1260	806.4	82	821.2		0	98.2	40-140	0		
Surr: Decachlorobiphenyl	26.29	0	32.83		0	80.1	40-140	0		
Surr: Tetrachloro-m-xylene	27.93	0	32.83		0	85.1	45-124	0		

MSD		Sample ID: 1404759-15B MSD				Units: µg/Kg		Analysis Date: 4/18/2014 04:32 PM			
Client ID:		Run ID: GC14_140418A				SeqNo: 2723707		Prep Date: 4/18/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Aroclor 1016	776.4	81	807.4	0	96.2	40-140	781.8	0.697	50		
Aroclor 1260	801.9	81	807.4	0	99.3	40-140	806.4	0.566	50		
Surr: Decachlorobiphenyl	29.08	0	32.28	0	90.1	40-140	26.29	10.1	50		
Surr: Tetrachloro-m-xylene	29.08	0	32.28	0	90.1	45-124	27.93	4.01	50		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** CB&I Government Solutions, Inc.  
**Work Order:** 1404964  
**Project:** Former GST Steele 148313

## QC BATCH REPORT

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Batch ID: **57692**      Instrument ID **GC14**      Method: **SW8082**

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The following samples were analyzed in this batch:

1404964-01A	1404964-02A	1404964-03A
1404964-04A	1404964-05A	1404964-06A
1404964-07A	1404964-08A	1404964-09A
1404964-10A		

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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** CB&I Government Solutions, Inc.  
**Work Order:** 1404964  
**Project:** Former GST Steele 148313

## QC BATCH REPORT

Batch ID: **R139271**      Instrument ID **MOIST**      Method: **A2540 G**

<b>MBLK</b>	Sample ID: <b>WBLKS-R139271</b>			Units: % of sample			Analysis Date: <b>4/18/2014 03:07 PM</b>			
Client ID:	Run ID: <b>MOIST_140418D</b>			SeqNo: <b>2721759</b>			Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture      U      0.050

<b>LCS</b>	Sample ID: <b>LCS-R139271</b>			Units: % of sample			Analysis Date: <b>4/18/2014 03:07 PM</b>			
Client ID:	Run ID: <b>MOIST_140418D</b>			SeqNo: <b>2721758</b>			Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture      100      0.050      100      0      100      99.5-100.5      0

<b>DUP</b>	Sample ID: <b>1404964-10A DUP</b>			Units: % of sample			Analysis Date: <b>4/18/2014 03:07 PM</b>			
Client ID: <b>Side 7</b>	Run ID: <b>MOIST_140418D</b>			SeqNo: <b>2721747</b>			Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture      26.39      0.050      0      0      0      0-0      26.87      1.8      20

<b>DUP</b>	Sample ID: <b>1404991-01A DUP</b>			Units: % of sample			Analysis Date: <b>4/18/2014 03:07 PM</b>			
Client ID:	Run ID: <b>MOIST_140418D</b>			SeqNo: <b>2721757</b>			Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture      16.64      0.050      0      0      0      0-0      16.46      1.09      20

The following samples were analyzed in this batch:

1404964-01A	1404964-02A	1404964-03A
1404964-04A	1404964-05A	1404964-06A
1404964-07A	1404964-08A	1404964-09A
1404964-10A		

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.



**Environmental**

Cincinnati, OH  
+1 513 733 5336

Everett, WA  
+1 425 356 2600

Fort Collins, CO  
+1 970 490 1511

Holland, MI  
+1 616 399 6070

# Chain of Custody Form

Page 1 of 1

COC ID: 92944

Houston, TX  
+1 281 530 5656

Middletown, PA  
+1 717 944 5541

Spring City, PA  
+1 610 948 4903

Salt Lake City, UT  
+1 801 266 7700

South Charleston, WV  
+1 304 356 3168

York, PA  
+1 717 505 5280

Customer Information		Project Information		Parameter/Method Request for Analysis													
Purchase Order		Project Name	Former GST Steele	A PCB-8082													
Work Order		Project Number	148313	B													
Company Name	CB&I - Lexana	BH To Company	C B&I Government Solutions, Inc	C													
Send Report To	Mark Finney	Invoice Attn	AP	D													
Address	11206 Thompson Avenue	Address	8116 Wilson Road	E													
City/State/Zip	Lexana, KS 66219	City/State/Zip	Kansas City, MO 64125	F													
Phone	(913) 317-3591	Phone		G													
Fax		Fax		H													
e-Mail Address	mark.finney@cbl.com	e-Mail Address	ap.invoices@cbl.com	I													
				J													

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	Side 1	4-16-14	1425	Soil	8	1	X										
2	Side 2		1430														
3	Side 3		1435														
4	Side 4		1440														X
5	Side 5		1445														
6	Side 6		1450														
7	Bottom 1		1415														
8	Bottom 2		1420														
9	Duplicate																
10	Side 7		1455														

Sampler(s) Please Print & Sign <i>Shane Brown</i>		Shipment Method <i>Fed Ex</i>		Required Turnaround Time (Check Box) <input checked="" type="checkbox"/> 1-2 Days <input type="checkbox"/> 3-5 Days <input type="checkbox"/> 6-10 Days <input type="checkbox"/> 11-15 Days <input type="checkbox"/> 16-20 Days <input type="checkbox"/> 21-30 Days <input type="checkbox"/> Other				Results Due Date <i>4-21-14</i>		
Relinquished by <i>[Signature]</i>	Date <i>4/16/14</i>	Time <i>1630</i>	Received by <i>[Signature]</i>		Notes <i>Hold Sample Side 4</i>					
Relinquished by <i>Vulture</i>	Date <i>4.17.14</i>	Time <i>11:13</i>	Received by (Laboratory) <i>[Signature]</i>		Cooler ID		Cooler Temp.		QC Package (Check One Box Below)	
Logged by (Laboratory) <i>[Signature]</i>	Date <i>4/18/14</i>	Time <i>1035</i>	Checked by (Laboratory) <i>[Signature]</i>						<input checked="" type="checkbox"/> Level II Std QC <input type="checkbox"/> Level III Std QC/Raw Data <input type="checkbox"/> Level IV SW846/CLP <input type="checkbox"/> Other / EDO	
Preservative (Add): 1-HCl 2-HNO <sub>3</sub> 3-H <sub>2</sub> SO <sub>4</sub> 4-NaOH 5-Na <sub>2</sub> S <sub>2</sub> O <sub>8</sub> 6-NaHSO <sub>4</sub> 7-Other 8-None 9-5085										

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.  
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.  
3. The Chain of Custody is a legal document. All information must be completed accurately.

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10450 Stancliff Road, Suite 210  
Houston, TX 77099  
T: +1 281 530 5656  
F: +1 281 530 5887  
www.alsglobal.com

Client: CB&I Date: 4.17.14 WO#: \_\_\_\_\_

Time Received: 9:30 Received by: J.E

Matrices: Solid/Sludge Water Oil Wipes Hydrocarbon Liquid Other

Kit ID/Cooler ID	Trip Blank ID	Cooler Temp (C) Observed/Corrected	IR #	Temp BLK Present?
4268		0.3 / 0.3	1	<input checked="" type="radio"/> Y N
		/		Y N
		/		Y N
		/		Y N
		/		Y N

Delivery Methods:

☒ FEDEX

☐ UPS

☐ Greyhound

ALS

Client

Other

Date/Time of Unpacking: 10:33 4.17.14 Unpacked by: J.E

Shipping container/cooler in good condition?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Not Present
Custody seals intact on shipping container/cooler?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Not Present
Custody seals intact on sample bottles?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	<input type="radio"/> Not Present
Chain of custody present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Chain of custody signed when relinquished and received?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Chain of custody agrees with sample labels?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Samples in proper container/bottle?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sample containers intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sufficient sample volume for indicated test?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
All samples received within holding time?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Container/Temp Blank temperature in compliance?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Water - VOA vials have zero headspace?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> No VOA vials submitted
Water - pH acceptable upon receipt?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
pH adjusted?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A

pH adjusted by: \_\_\_\_\_

pH Paper Lot: \_\_\_\_\_

See Preservation Logbook

VOA/TX1005/1006 Solids in Sealed Vials: Y or N

TRK  
0215

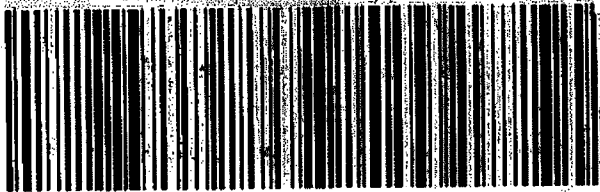
8052 9842 3905

THU - 17 APR 10:30A  
PRIORITY OVERNIGHT

NC SGRA

770

TX-US



ALS Environmental

10450 Stanchiff Rd, Suite 210

Houston, Texas 77056

Tel: 281 530 5856

Fax: 281 530 5887

CUSTODY SEAL

Date: 4/17/90  
Name: Steve Thompson  
Signature: [Handwritten Signature]

Seal Broken By:

Date:

# ALS Group USA, Corp

## Sample Receipt Checklist

Client Name: **CB&I - LENEXA**

Date/Time Received: **18-Apr-14 10:00**

Work Order: **1404964**

Received by: **JR**

Checklist completed by **Joseph Ribar**

18-Apr-14

Reviewed by: **Chad Whelton**

18-Apr-14

eSignature

Date

eSignature

Date

Matrices: **soil**

Carrier name: **FedEx**

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Present ☐

Custody seals intact on shipping container/cooler?

Yes ☒

No ☐

Not Present ☐

Custody seals intact on sample bottles?

Yes ☐

No ☐

Not Present ☒

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

Container/Temp Blank temperature in compliance?

Yes ☒

No ☐

Sample(s) received on ice?

Yes ☒

No ☐

Temperature(s)/Thermometer(s):

3.2 c

Cooler(s)/Kit(s):

Date/Time sample(s) sent to storage:

4/18/2014 10:42:28 AM

Water - VOA vials have zero headspace?

Yes ☐

No ☐

No VOA vials submitted ☒

Water - pH acceptable upon receipt?

Yes ☐

No ☐

N/A ☒

pH adjusted?

Yes ☐

No ☐

N/A ☒

pH adjusted by:

-

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:



10450 Stancliff Rd. Suite 210  
Houston, TX 77099  
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[www.alsglobal.com](http://www.alsglobal.com)

May 12, 2014

Mark Finney  
CB&I - Lexana  
11206 Thompson Avenue  
Lenexa, KS 66219

Work Order: **HS14050286**

Laboratory Results for: **Former GST Steele PCB 148313**

Dear Mark,

ALS Environmental received 4 sample(s) on May 08, 2014 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

A handwritten signature in black ink that reads "Bethany McDaniel".

Generated By: Ana.Spencer  
Bethany McDaniel  
Project Manager

**Client:** CB&I - Lexana  
**Project:** Former GST Steele PCB 148313  
**Work Order:** HS14050286

**SAMPLE SUMMARY**

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS14050286-01	SIDE 8	Soil		07-May-2014 11:45	08-May-2014 09:15	<input type="checkbox"/>
HS14050286-02	SIDE 9	Soil		07-May-2014 12:01	08-May-2014 09:15	<input type="checkbox"/>
HS14050286-03	BOTTOM 3	Soil		07-May-2014 12:13	08-May-2014 09:15	<input type="checkbox"/>
HS14050286-04	BOTTOM 13	Soil		07-May-2014 12:13	08-May-2014 09:15	<input type="checkbox"/>

ALS Group USA, Corp

Date: 12-May-14

**Client:** CB&I - Lexana  
**Project:** Former GST Steele PCB 148313  
**Work Order:** HS14050286

**CASE NARRATIVE**

No Exceptions

Client: CB&I - Lexana  
Project: Former GST Steele PCB 148313  
Sample ID: SIDE 8  
Collection Date: 07-May-2014 11:45

**ANALYTICAL REPORT**

WorkOrder: HS14050286  
Lab ID: HS14050286-01  
Matrix: Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
<b>PCBS BY SW8082A</b>		<b>Method: SW8082</b>		Prep: SW3541/3665A / 09-May-2014 Analyst: SE		
Aroclor 1016	ND		17	ug/Kg	1	09-May-2014 14:09
Aroclor 1221	ND		17	ug/Kg	1	09-May-2014 14:09
Aroclor 1232	ND		17	ug/Kg	1	09-May-2014 14:09
Aroclor 1242	ND		17	ug/Kg	1	09-May-2014 14:09
Aroclor 1248	ND		17	ug/Kg	1	09-May-2014 14:09
Aroclor 1254	ND		17	ug/Kg	1	09-May-2014 14:09
Aroclor 1260	ND		17	ug/Kg	1	09-May-2014 14:09
Surr: Decachlorobiphenyl	95.3		54-143	%REC	1	09-May-2014 14:09
Surr: Tetrachloro-m-xylene	79.7		55-137	%REC	1	09-May-2014 14:09

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: CB&I - Lexana  
Project: Former GST Steele PCB 148313  
Sample ID: SIDE 9  
Collection Date: 07-May-2014 12:01

**ANALYTICAL REPORT**

WorkOrder: HS14050286  
Lab ID: HS14050286-02  
Matrix: Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
<b>PCBS BY SW8082A</b>		<b>Method: SW8082</b>		Prep: SW3541/3665A / 09-May-2014 Analyst: SE		
Aroclor 1016	ND		17	ug/Kg	1	09-May-2014 14:55
Aroclor 1221	ND		17	ug/Kg	1	09-May-2014 14:55
Aroclor 1232	ND		17	ug/Kg	1	09-May-2014 14:55
Aroclor 1242	ND		17	ug/Kg	1	09-May-2014 14:55
Aroclor 1248	ND		17	ug/Kg	1	09-May-2014 14:55
Aroclor 1254	ND		17	ug/Kg	1	09-May-2014 14:55
Aroclor 1260	ND		17	ug/Kg	1	09-May-2014 14:55
Surr: Decachlorobiphenyl	105		54-143	%REC	1	09-May-2014 14:55
Surr: Tetrachloro-m-xylene	85.5		55-137	%REC	1	09-May-2014 14:55

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: CB&I - Lexana  
Project: Former GST Steele PCB 148313  
Sample ID: BOTTOM 3  
Collection Date: 07-May-2014 12:13

**ANALYTICAL REPORT**

WorkOrder: HS14050286  
Lab ID: HS14050286-03  
Matrix: Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
<b>PCBS BY SW8082A</b>		<b>Method: SW8082</b>		Prep: SW3541/3665A / 09-May-2014 Analyst: SE		
Aroclor 1016	ND		17	ug/Kg	1	09-May-2014 15:10
Aroclor 1221	ND		17	ug/Kg	1	09-May-2014 15:10
Aroclor 1232	ND		17	ug/Kg	1	09-May-2014 15:10
Aroclor 1242	ND		17	ug/Kg	1	09-May-2014 15:10
Aroclor 1248	ND		17	ug/Kg	1	09-May-2014 15:10
Aroclor 1254	ND		17	ug/Kg	1	09-May-2014 15:10
<b>Aroclor 1260</b>	<b>24</b>		<b>17</b>	<b>ug/Kg</b>	<b>1</b>	<b>09-May-2014 15:10</b>
Surr: Decachlorobiphenyl	98.6		54-143	%REC	1	09-May-2014 15:10
Surr: Tetrachloro-m-xylene	82.3		55-137	%REC	1	09-May-2014 15:10

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: CB&I - Lexana  
Project: Former GST Steele PCB 148313  
Sample ID: BOTTOM 13  
Collection Date: 07-May-2014 12:13

**ANALYTICAL REPORT**

WorkOrder: HS14050286  
Lab ID: HS14050286-04  
Matrix: Soil

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
<b>PCBS BY SW8082A</b>		<b>Method: SW8082</b>		Prep: SW3541/3665A / 09-May-2014 Analyst: SE		
Aroclor 1016	ND		17	ug/Kg	1	09-May-2014 15:25
Aroclor 1221	ND		17	ug/Kg	1	09-May-2014 15:25
Aroclor 1232	ND		17	ug/Kg	1	09-May-2014 15:25
Aroclor 1242	ND		17	ug/Kg	1	09-May-2014 15:25
Aroclor 1248	ND		17	ug/Kg	1	09-May-2014 15:25
Aroclor 1254	ND		17	ug/Kg	1	09-May-2014 15:25
Aroclor 1260	ND		17	ug/Kg	1	09-May-2014 15:25
Surr: Decachlorobiphenyl	88.8		54-143	%REC	1	09-May-2014 15:25
Surr: Tetrachloro-m-xylene	73.5		55-137	%REC	1	09-May-2014 15:25

Note: See Qualifiers Page for a list of qualifiers and their explanation.

**Client:** CB&I - Lexana  
**Project:** Former GST Steele PCB 148313  
**WorkOrder:** HS14050286

**DATES REPORT**

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID 81778	Test Name : PCBS BY SW8082A		Matrix: Soil			
HS14050286-01	SIDE 8	07 May 2014 11:45		09 May 2014 08:48	09 May 2014 14:09	1
HS14050286-02	SIDE 9	07 May 2014 12:01		09 May 2014 08:48	09 May 2014 14:55	1
HS14050286-03	BOTTOM 3	07 May 2014 12:13		09 May 2014 08:48	09 May 2014 15:10	1
HS14050286-04	BOTTOM 13	07 May 2014 12:13		09 May 2014 08:48	09 May 2014 15:25	1

Client: CB&I - Lexana  
 WorkOrder: HS14050286  
 Project: Former GST Steele PCB 148313

## QC BATCH REPORT

Batch ID: 81778 Instrument: ECD\_7 Method: SW8082

<b>MBLK</b>	Sample ID: <b>MBLK-81778</b>	Units: <b>ug/Kg</b>			Analysis Date: <b>09-May-2014 16:11</b>				
Client ID:		Run ID: <b>ECD_7_233466</b>	SeqNo: <b>2829902</b>		PrepDate: <b>09-May-2014</b>		DF: 1		
Analyte	Result	PQL SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	ND	17							
Aroclor 1221	ND	17							
Aroclor 1232	ND	17							
Aroclor 1242	ND	17							
Aroclor 1248	ND	17							
Aroclor 1254	ND	17							
Aroclor 1260	ND	17							
Surr: Decachlorobiphenyl	7.093	1.6	6.667	0	106	54 - 143			
Surr: Tetrachloro-m-xylene	6.209	1.6	6.667	0	93.1	55 - 137			

LCS	Sample ID: LCS-81778	Units: ug/Kg				Analysis Date: 09-May-2014 16:26				
Client ID:	Run ID: ECD_7_233466	SeqNo: 2829903		PrepDate: 09-May-2014		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	168.7	17	166.7	0	101	53 - 135				
Aroclor 1260	195.4	17	166.7	0	117	54 - 137				
Surr: Decachlorobiphenyl	8.442	1.6	6.667	0	127	54 - 143				
Surr: Tetrachloro-m-xylene	7.185	1.6	6.667	0	108	55 - 137				

<b>MS</b>	Sample ID: <b>HS14050286-01MS</b>			Units: <b>ug/Kg</b>		Analysis Date: <b>09-May-2014 14:25</b>				
Client ID: <b>SIDE 8</b>	Run ID: <b>ECD_7_233466</b>			SeqNo: <b>2829897</b>		PrepDate: <b>09-May-2014</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	178.7	17	166.2	0	107	53 - 135				
Aroclor 1260	176.3	17	166.2	0	106	54 - 137				
Surr: Decachlorobiphenyl	7.727	1.6	6.647	0	116	54 - 143				
Surr: Tetrachloro-m-xylene	6.532	1.6	6.647	0	98.3	55 - 137				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: CB&I - Lexana  
 WorkOrder: HS14050286  
 Project: Former GST Steele PCB 148313

## QC BATCH REPORT

Batch ID: 81778 Instrument: ECD\_7 Method: SW8082

<b>MSD</b>	Sample ID: <b>HS14050286-01MSD</b>				Units: <b>ug/Kg</b>		Analysis Date: <b>09-May-2014 14:40</b>			
Client ID: <b>SIDE 8</b>	Run ID: <b>ECD_7_233466</b>				SeqNo: <b>2829898</b>		PrepDate: <b>09-May-2014</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	173.9	17	166.2	0	105	53 - 135	178.7	2.69	30	
Aroclor 1260	175.2	17	166.2	0	105	54 - 137	176.3	0.585	30	
Surr: Decachlorobiphenyl	7.633	1.6	6.647	0	115	54 - 143	7.727	1.22	30	
Surr: Tetrachloro-m-xylene	6.509	1.6	6.647	0	97.9	55 - 137	6.532	0.352	30	
The following samples were anayzed in this batch:										
HS14050286-01			HS14050286-02			HS14050286-03		HS14050286-04		

Note: See Qualifiers Page for a list of qualifiers and their explanation.

**Client:** CB&I - Lexana  
**Project:** Former GST Steele PCB 148313  
**WorkOrder:** HS14050286

**QUALIFIERS,  
ACRONYMS, UNITS**

<b>Qualifier</b>	<b>Description</b>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<b>Acronym</b>	<b>Description</b>
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution

<b>Unit Reported</b>	<b>Description</b>
µg/Kg	Micrograms per Kilogram

**CERTIFICATIONS, ACCREDITATIONS & LICENSES**

Agency	Number	Expire Date
Arkansas	AR - 2014	27-Mar-2015
California	06248CA 2013-2014	31-Jul-2014
Dept of Defense	L2231 Rev 3-20-2014	22-Dec-2015
Illinois	003403	09-May-2015
Kansas	E-10352 8/15/2013-2014	31-Jul-2014
Louisiana	03087 2013/2014	30-Jun-2014
North Carolina	624 - 2014	31-Dec-2014
Oklahoma	2013-024	31-Aug-2014
Texas	TX104704231-14-13	30-Apr-2015

**Client:** CB&I - Lexana  
**Project:** Former GST Steele PCB 148313  
**Work Order:** HS14050286

**SAMPLE TRACKING**

Lab Samp ID	Client Sample ID	Action	Date	Person	New Location
HS14050286-01	SIDE 8	Login	08-May-14 01:10	DRC	23A
HS14050286-02	SIDE 9	Login	08-May-14 01:10	DRC	23A
HS14050286-03	BOTTOM 3	Login	08-May-14 01:10	DRC	23A
HS14050286-04	BOTTOM 13	Login	08-May-14 01:10	DRC	23A

## Sample Receipt Checklist

Client Name: CBI-Lexana  
Work Order: HS14050286

Date/Time Received: 08-May-2014 09:15  
Received by: DRC

Checklist completed by: Dana Capps 8-May-2014  
eSignature Date

Reviewed by: Bethany McDaniel 9-May-2014  
eSignature Date

Matrices: Soil

Carrier name: ALS Courier

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Present ☐

Custody seals intact on shipping container/cooler?

Yes ☒

No ☐

Not Present ☐

Custody seals intact on sample bottles?

Yes ☐

No ☐

Not Present ☒

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

Container/Temp Blank temperature in compliance?

Yes ☒

No ☐

Temperature(s)/Thermometer(s):

0.3/0.3 C/U

IR3

Cooler(s)/Kit(s):

6040

Date/Time sample(s) sent to storage:

05/08/2014

Water - VOA vials have zero headspace?

Yes ☐

No ☐

No VOA vials submitted ☒

Water - pH acceptable upon receipt?

Yes ☐

No ☐

N/A ☒

pH adjusted?

Yes ☐

No ☐

N/A ☒

pH adjusted by:

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By: 0

Regarding:

Comments:

Corrective Action:



Cincinnati, OH  
+1 513 733 5336

Everett, WA  
+1 425 356 2600

Fort Collins, CO  
+1 970 490 1511

Holland, MI  
+1 616 399 6070

# Chain of Custody For

Page 1 of 1

COC ID: 92945

HS14050286

CB&I - Lexana

Former GST Steele PCB 148313



100, WV  
68

180

## Environmental

ALS Project Manager:

Customer Information		Project Information		
Purchase Order	840738	Project Name	Former GST Steele	A PCB-8082
Work Order		Project Number		B
Company Name	CB&I - Lexana	Bill To Company	C B&I Government Solutions, Inc	C
Send Report To	Mark Finney	Invoice Attn	A/P	D
Address	11206 Thompson Avenue	Address	8116 Wilson Road	E
				F
City/State/Zip	Lenexa, KS 66219	City/State/Zip	Kansas City, MO 64125	G
Phone	(913) 317-3591	Phone		H
Fax		Fax		I
e-Mail Address	mark.finney@cbi.com	e-Mail Address	ap.invoices@CBI.com	J


No.	Sample Description	Date	Time	Matrix	Pres.	#Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	SIDE 8	5/7/14	1145	Soil	-	1	X										
2	SIDE 9		1201			1											
3	BOTTOM 3		1213			1											
4	BOTTOM 13		1213			1											
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign <i>Mark Finney</i>		Shipment Method		Required Turnaround Time: (Check Box) <input type="checkbox"/> 1-3 Wk Days <input type="checkbox"/> 5 Wk Days <input checked="" type="checkbox"/> Other 48 Hrs <input type="checkbox"/> 2 Wk Days <input type="checkbox"/> 24 Hour		Results Due Date:	
Relinquished by: <i>Mark Finney</i>	Date: 5/8/14	Time: 1505	Received by:		Notes:		
Relinquished by:	Date: 5.8.14	Time: 9:15	Received by (Laboratory): <i>Kushner</i>		Cooler ID	Cooler Temp.	QC Package: (Check One Box Below)
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):				<input checked="" type="checkbox"/> Level II Std QC <input type="checkbox"/> Level III Std QC/Raw Data <input type="checkbox"/> Level IV SW846/CLP <input type="checkbox"/> Other / EOD
Preservative Key: 1-HCl 2-HNO <sub>3</sub> 3-H <sub>2</sub> SO <sub>4</sub> 4-NaOH 5-Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> 6-NaHSO <sub>4</sub> 7-Other 8-4°C 9-6035							


- Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.  
 2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.  
 3. The Chain of Custody is a legal document. All information must be completed accurately.

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TIME <b>0815</b> <b>8013 7714 2912</b>	<b>THU - 08 MAY 10:30A</b> <b>PRIORITY OVERNIGHT</b>
<b>AB SGRA</b>	<b>77099</b> TX-US IAH

 <b>ALS Environmental</b> 10450 Standcliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	<b>CUSTODY SEAL</b>		Seal Broken By: <b>JE</b> Date: <b>5-8-14</b>
	Date: <b>5/7/14</b> Time: <b>1430</b> Name: <b>ALAN ROBERT</b> Company: <b>CB&amp;I</b>		

 <b>ALS Environmental</b> 10450 Standcliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	<b>CUSTODY SEAL</b>		Seal Broken By: <b>JE</b> Date: <b>5-8-14</b>
	Date: <b>5/7/14</b> Time: <b>(1430)</b> Name: <b>ALAN ROBERT</b> Company: <b>CB&amp;I</b>		



10450 Stancliff Rd. Suite 210  
Houston, TX 77099  
T: +1 281 530 5656  
F: +1 281 530 5887  
www.alsglobal.com

June 04, 2014

Mark Finney  
CB&I - Lexana  
11206 Thompson Avenue  
Lenexa, KS 66219

Work Order: **HS14050974**

Laboratory Results for: **Former GST Steele PCB 148313**

Dear Mark,

ALS Environmental received 4 sample(s) on May 22, 2014 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

A handwritten signature in black ink that reads "Bethany McDaniel".

Generated By: Dayna.Fisher  
Bethany McDaniel  
Project Manager

**Client:** CB&I - Lexana  
**Project:** Former GST Steele PCB 148313  
**Work Order:** HS14050974

**SAMPLE SUMMARY**

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS14050974-01	GW-2	Groundwater		21-May-2014 09:45	22-May-2014 09:00	<input type="checkbox"/>
HS14050974-02	GW-2F	Groundwater		21-May-2014 10:00	22-May-2014 09:00	<input type="checkbox"/>
HS14050974-03	GW-1	Groundwater		21-May-2014 10:25	22-May-2014 09:00	<input type="checkbox"/>
HS14050974-04	GW-1F	Groundwater		21-May-2014 10:35	22-May-2014 09:00	<input type="checkbox"/>

**Client:** CB&I - Lexana  
**Project:** Former GST Steele PCB 148313  
**Work Order:** HS14050974

**CASE NARRATIVE**

Batch 82341, PCBs by Method SW8082, Insufficient sample to perform MS/MSD. LCS/LCSD provided as batch quality control.

Client: CB&I - Lexana  
Project: Former GST Steele PCB 148313  
Sample ID: GW-2  
Collection Date: 21-May-2014 09:45

## ANALYTICAL REPORT

WorkOrder:HS14050974

Lab ID:HS14050974-01

Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
PCBS BY SW8082A		Method:SW8082		Prep:SW3510C/3665A / 27-May-2014		Analyst: JLJ
Aroclor 1016	ND		0.500	ug/L	1	28-May-2014 14:05
Aroclor 1221	ND		0.500	ug/L	1	28-May-2014 14:05
Aroclor 1232	ND		0.500	ug/L	1	28-May-2014 14:05
Aroclor 1242	ND		0.500	ug/L	1	28-May-2014 14:05
Aroclor 1248	ND		0.500	ug/L	1	28-May-2014 14:05
Aroclor 1254	ND		0.500	ug/L	1	28-May-2014 14:05
Aroclor 1260	ND		0.500	ug/L	1	28-May-2014 14:05
Surr: Decachlorobiphenyl	96.4		54-140	%REC	1	28-May-2014 14:05
Surr: Tetrachloro-m-xylene	95.3		53-137	%REC	1	28-May-2014 14:05

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: CB&I - Lexana  
Project: Former GST Steele PCB 148313  
Sample ID: GW-2F  
Collection Date: 21-May-2014 10:00

## ANALYTICAL REPORT

WorkOrder: HS14050974  
Lab ID: HS14050974-02  
Matrix: Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
PCBS BY SW8082A		Method: SW8082		Prep: SW3510C/3665A / 27-May-2014		Analyst: JLJ
Aroclor 1016	ND		0.500	ug/L	1	28-May-2014 14:20
Aroclor 1221	ND		0.500	ug/L	1	28-May-2014 14:20
Aroclor 1232	ND		0.500	ug/L	1	28-May-2014 14:20
Aroclor 1242	ND		0.500	ug/L	1	28-May-2014 14:20
Aroclor 1248	ND		0.500	ug/L	1	28-May-2014 14:20
Aroclor 1254	ND		0.500	ug/L	1	28-May-2014 14:20
Aroclor 1260	ND		0.500	ug/L	1	28-May-2014 14:20
Surr: Decachlorobiphenyl	108		54-140	%REC	1	28-May-2014 14:20
Surr: Tetrachloro-m-xylene	104		53-137	%REC	1	28-May-2014 14:20

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: CB&I - Lexana  
Project: Former GST Steele PCB 148313  
Sample ID: GW-1  
Collection Date: 21-May-2014 10:25

**ANALYTICAL REPORT**

WorkOrder: HS14050974  
Lab ID: HS14050974-03  
Matrix: Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
<b>PCBS BY SW8082A</b>		<b>Method: SW8082</b>		Prep: SW3510C/3665A / 27-May-2014		Analyst: JJJ
Aroclor 1016	ND		0.500	ug/L	1	28-May-2014 14:35
Aroclor 1221	ND		0.500	ug/L	1	28-May-2014 14:35
Aroclor 1232	ND		0.500	ug/L	1	28-May-2014 14:35
Aroclor 1242	ND		0.500	ug/L	1	28-May-2014 14:35
Aroclor 1248	ND		0.500	ug/L	1	28-May-2014 14:35
Aroclor 1254	ND		0.500	ug/L	1	28-May-2014 14:35
Aroclor 1260	ND		0.500	ug/L	1	28-May-2014 14:35
Surr: Decachlorobiphenyl	106		54-140	%REC	1	28-May-2014 14:35
Surr: Tetrachloro-m-xylene	102		53-137	%REC	1	28-May-2014 14:35

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: CB&I - Lexana  
Project: Former GST Steele PCB 148313  
Sample ID: GW-1F  
Collection Date: 21-May-2014 10:35

**ANALYTICAL REPORT**

WorkOrder: HS14050974  
Lab ID: HS14050974-04  
Matrix: Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
<b>PCBS BY SW8082A</b>		<b>Method: SW8082</b>		Prep: SW3510C/3865A / 27-May-2014		Analyst: JJJ
Aroclor 1016	ND		0.500	ug/L	1	28-May-2014 14:50
Aroclor 1221	ND		0.500	ug/L	1	28-May-2014 14:50
Aroclor 1232	ND		0.500	ug/L	1	28-May-2014 14:50
Aroclor 1242	ND		0.500	ug/L	1	28-May-2014 14:50
Aroclor 1248	ND		0.500	ug/L	1	28-May-2014 14:50
Aroclor 1254	ND		0.500	ug/L	1	28-May-2014 14:50
Aroclor 1260	ND		0.500	ug/L	1	28-May-2014 14:50
Surr: Decachlorobiphenyl	89.1		54-140	%REC	1	28-May-2014 14:50
Surr: Tetrachloro-m-xylene	85.7		53-137	%REC	1	28-May-2014 14:50

Note: See Qualifiers Page for a list of qualifiers and their explanation.

**Client:** CB&I - Lexana  
**Project:** Former GST Steele PCB 148313  
**WorkOrder:** HS14050974

**DATES REPORT**

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
<b>Batch ID</b> 82341	<b>Test Name :</b> PCBS BY SW8082A		<b>Matrix:</b> Groundwater			
HS14050974-01	GW-2	21 May 2014 09:45		27 May 2014 13:50	28 May 2014 14:05	1
HS14050974-02	GW-2F	21 May 2014 10:00		27 May 2014 13:50	28 May 2014 14:20	1
HS14050974-03	GW-1	21 May 2014 10:25		27 May 2014 13:50	28 May 2014 14:35	1
HS14050974-04	GW-1F	21 May 2014 10:35		27 May 2014 13:50	28 May 2014 14:50	1

Client: CB&I - Lexana  
 WorkOrder: HS14050974  
 Project: Former GST Steele PCB 148313

## QC BATCH REPORT

Batch ID: 82341 Instrument: ECD\_7 Method: SW8082

MBLK Sample ID: MBLK-82341 Units: ug/L Analysis Date: 28-May-2014 13:20

Client ID: Run ID: ECD\_7\_234827 SeqNo: 2862526 PrepDate: 27-May-2014 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
---------	--------	-----	---------	---------------	------	---------------	---------------	------	-----------	------

Aroclor 1016 ND 0.500

Aroclor 1221 ND 0.500

Aroclor 1232 ND 0.500

Aroclor 1242 ND 0.500

Aroclor 1248 ND 0.500

Aroclor 1254 ND 0.500

Aroclor 1260 ND 0.500

Surr: Decachlorobiphenyl 0.1669 0.0500 0.2 0 83.5 54 - 140

Surr: Tetrachloro-m-xylene 0.1635 0.0500 0.2 0 81.7 53 - 137

LCS Sample ID: LCS-82341 Units: ug/L Analysis Date: 28-May-2014 13:35

Client ID: Run ID: ECD\_7\_234827 SeqNo: 2862527 PrepDate: 27-May-2014 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
---------	--------	-----	---------	---------------	------	---------------	---------------	------	-----------	------

Aroclor 1016 4.444 0.500 5 0 88.9 54 - 138

Aroclor 1260 4.305 0.500 5 0 86.1 57 - 136

Surr: Decachlorobiphenyl 0.1863 0.0500 0.2 0 93.1 54 - 140

Surr: Tetrachloro-m-xylene 0.1811 0.0500 0.2 0 90.6 53 - 137

LCSD Sample ID: LCSD-82341 Units: ug/L Analysis Date: 28-May-2014 13:50

Client ID: Run ID: ECD\_7\_234827 SeqNo: 2862528 PrepDate: 27-May-2014 DF: 1

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
---------	--------	-----	---------	---------------	------	---------------	---------------	------	-----------	------

Aroclor 1016 4.529 0.500 5 0 90.6 54 - 138 4.444 1.89 20

Aroclor 1260 4.47 0.500 5 0 89.4 57 - 136 4.305 3.75 20

Surr: Decachlorobiphenyl 0.1835 0.0500 0.2 0 91.8 54 - 140 0.1863 1.5 20

Surr: Tetrachloro-m-xylene 0.1808 0.0500 0.2 0 90.4 53 - 137 0.1811 0.188 20

The following samples were analyzed in this batch: HS14050974-01 HS14050974-02 HS14050974-03 HS14050974-04

Note: See Qualifiers Page for a list of qualifiers and their explanation.

**Client:** CB&I - Lexana  
**Project:** Former GST Steele PCB 148313  
**WorkOrder:** HS14050974

**QUALIFIERS,  
ACRONYMS, UNITS**

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<u>Acronym</u>	<u>Description</u>
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution

<u>Unit Reported</u>	<u>Description</u>
µg/L	Micrograms per Liter

---

**CERTIFICATIONS,ACCREDITATIONS & LICENSES**

---

Agency	Number	Expire Date
Arkansas	AR - 2014	27-Mar-2015
California	06248CA 2013-2014	31-Jul-2014
Dept of Defense	L2231 Rev 3-20-2014	22-Dec-2015
Illinois	003403	09-May-2015
Kansas	E-10352 8/15/2013-2014	31-Jul-2014
Kentucky	KY 2014-2015	30-Apr-2015
Louisiana	03087 2013/2014	30-Jun-2014
North Carolina	624 - 2014	31-Dec-2014
North Dakota	R-193 2025	30-Apr-2015
Oklahoma	2013-024	31-Aug-2014
Texas	TX104704231-14-13	30-Apr-2015

**Client:** CB&I - Lexana  
**Project:** Former GST Steele PCB 148313  
**Work Order:** HS14050974

**SAMPLE TRACKING**

Lab Samp ID	Client Sample ID	Action	Date	Person	New Location
HS14050974-01	GW-2	Login	24-May-14 01:08	DRC	26A
HS14050974-02	GW-2F	Login	24-May-14 01:08	DRC	26A
HS14050974-03	GW-1	Login	24-May-14 01:08	DRC	26A
HS14050974-04	GW-1F	Login	24-May-14 01:08	DRC	26A

## Sample Receipt Checklist

Client Name: CBI-Lexana  
Work Order: HS14050974

Date/Time Received: **22-May-2014 09:00**  
Received by: **JDE**

Checklist completed by: Dana.Capps 24-May-2014  
eSignature Date

Reviewed by: Bethany McDaniel 28-May-2014  
eSignature Date

Matrices: **Water**

Carrier name: **FedEx**

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Present ☐

Custody seals intact on shipping container/cooler?

Yes ☒

No ☐

Not Present ☐

Custody seals intact on sample bottles?

Yes ☐

No ☐

Not Present ☒

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

Container/Temp Blank temperature in compliance?

Yes ☒

No ☐

Temperature(s)/Thermometer(s):

1.2/1.2 C/U

IR3

Cooler(s)/Kit(s):

3106

Date/Time sample(s) sent to storage:

05/24/2014

Water - VOA vials have zero headspace?

Yes ☐

No ☐

No VOA vials submitted ☒

Water - pH acceptable upon receipt?

Yes ☐

No ☐

N/A ☒

pH adjusted?

Yes ☐

No ☐

N/A ☒

pH adjusted by:

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By: 0

Regarding:

Comments:

Corrective Action:



ALS Laboratory Group  
10450 Stancilff Rd., Suite 210  
Houston, Texas 77099  
Tel. +1 281 530 5656  
Fax. +1 281 530 5887

# Chain of Custody Form

HS14050974

Page 1 of 1

CB&I - Lexana

Former GST Steele PCB 148313



ALS Project Manager:

Customer Information			Project Information		
Purchase Order	840738	Project Name	Former GST Steele	A	PCBs 8082
Work Order		Project Number	148313	B	
Company Name	CB&I - Lexana	Bill To Company	CB&I	C	
Send Report To	Mark Finnley	Invoice Attn	AIP	D	
Address	11206 Thompson Ave	Address		E	
City/State/Zip	Lexana, KS 66219	City/State/Zip		F	
Phone	913-317-3591	Phone		G	
Fax		Fax		H	
e-Mail Address	mark.finnley@cbi.com	e-Mail Address	ap.invoices@cbi.com	I	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	GW-2	5/21/14	0945	GW	8	1	X										
2	GW-2F	↓	1000	GW	8	1	X										
3	GW-1	↓	1025	GW	8	1	X										
4	GW-1F	↓	1035	GW	8	1	X										
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign Shane Brumhardt		Shipment Method Fed-Ex		Required Turnaround Time: (Check Box) <input checked="" type="checkbox"/> STD 10 Wk Days <input type="checkbox"/> 5 Wk Days <input type="checkbox"/> 2 Wk Days <input type="checkbox"/> 24 Hour		Results Due Date:	
Relinquished by:	Date: 5/21/14	Time: 1200	Received by:	Notes:			
Relinquished by:	Date: 5-22-14	Time: 9:00	Received by (Laboratory):	Cooler ID	Cooler Temp	QC Package: (Check One Box Below)	
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):			<input type="checkbox"/> Level II Std QC <input type="checkbox"/> TRRP Checklist <input type="checkbox"/> Level III Std QC/Raw Data <input type="checkbox"/> TRRP Level IV <input type="checkbox"/> Level IV SW846/CLP <input type="checkbox"/> Other	

Preservative Key: 1-HCl 2-HNO<sub>3</sub> 3-H<sub>2</sub>SO<sub>4</sub> 4-NaOH 5-Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> 6-NaHSO<sub>4</sub> 7-Other 8-4°C 9-5035

- ote: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Laboratory Group.  
2. Unless otherwise agreed in a formal contract, services provided by ALS Laboratory Group are expressly limited to the terms and conditions stated on the reverse.  
3. The Chain of Custody is a legal document. All information must be completed accurately.



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TRN# 8052 9842 3890  
Q215

THU - 22 MAY 10:30A  
PRIORITY OVERNIGHT

NC SGRA

77099  
TX - US IAH

	<b>ALS Environmental</b>	
	10450 Stanciff Rd., Suite 210	
	Houston, Texas 77099	
	Tel. +1 281 630 5656 Fax. +1 281 630 6887	
<b>CUSTODY SEAL</b>		
Date: <u>5/22/14</u>	Time: <u>11:08</u>	
Name: <u>Shane B. Bangerdt</u>		
Company: <u>C.D. P.</u>		

**Appendix C**  
**Waste Manifests**

REPRINTED  
Ticket# 963329  
Operator PSHAFFER\_JC

JOHNSON COUNTY LANDFILL  
PO BOX 3249  
SHAWNEE KS 66203

Date: 7/31/13  
In: 1:34 PM  
Out: 1:34 PM

Origin: KANSAS CITY-JAC

PO#: NA

Auth#: 13188

Manifest: NA

Cust# 56-0001144

Veh1: FW-0002

Tare: 22400

MILE RAIL

Cont:

Tare:

8116 WILSON RD

KANSAS CITY MO 64125

Comment:

Material	Gross Wgt	Tare Wgt	Net Wgt	Qty	Amount
SW-CONTAMINATED SOIL	36780 LB 1	22400 LB T	14380 LB	7.19 TN	201.32

Total- 201.32

Driver Signature \_\_\_\_\_ Driver Printed Name \_\_\_\_\_  
Weight Codes: M=Manual, T=Stored Tare, 1/2 = Scale

REPRINTED  
Ticket# 963396  
Operator PSHAFFER\_JC

JOHNSON COUNTY LANDFILL  
PO BOX 3249  
SHAWNEE KS 66203

Date: 7/31/13  
In: 2:31 PM  
Out: 2:31 PM

Origin: KANSAS CITY-JAC

PO#: NA

Auth#: 13188

Manifest: NA

Cust# 56-0001144

Veh1: FW-0003

Tare: 32860

MILE RAIL

Cont:

Tare:

8116 WILSON RD

KANSAS CITY MO 64125

Comment:

Material	Gross Wgt	Tare Wgt	Net Wgt	Qty	Amount
SW-CONTAMINATED SOIL	61800 LB 1	32860 LB T	28940 LB	14.47 TN	405.16

Total- 405.16

Driver Signature \_\_\_\_\_ Driver Printed Name \_\_\_\_\_  
Weight Codes: M=Manual, T=Stored Tare, 1/2 = Scale

REPRINTED  
Ticket# 963786  
Operator PSHAFAER\_JC

JOHNSON COUNTY LANDFILL  
PO BOX 3249  
SHAWNEE KS 66203

Date: 8/01/13  
In: 9:00 AM  
Out: 9:00 AM

Origin: KANSAS CITY-JAC

PO#: NA

Auth#: 13188

Manifest: NA

Cust# 56-0001144

Veh1: FW-0003

Tare: 32860

MILE RAIL

Cont:

Tare:

8116 WILSON RD

KANSAS CITY MO 64125

Comment:

Material	Gross Wgt	Tare Wgt	Net Wgt	Qty	Amount
SW-CONTAMINATED SOIL	83660 LB 1	32860 LB T	50800 LB	25.40 TN	711.20

Total- 711.20

Driver Signature \_\_\_\_\_ Driver Printed Name \_\_\_\_\_  
Weight Codes: M=Manual, T=Stored Tare, 1/2 = Scale

REPRINTED  
Ticket# 963842  
Operator PSHAFAER\_JC

JOHNSON COUNTY LANDFILL  
PO BOX 3249  
SHAWNEE KS 66203

Date: 8/01/13  
In: 10:12 AM  
Out: 10:12 AM

Origin: KANSAS CITY-JAC

PO#: NA

Auth#: 13188

Manifest: NA

Cust# 56-0001144

Veh1: MS-0007

Tare: 36420

MILE RAIL

Cont:

Tare:

8116 WILSON RD

KANSAS CITY MO 64125

Comment:

Material	Gross Wgt	Tare Wgt	Net Wgt	Qty	Amount
SW-CONTAMINATED SOIL	65540 LB 1	36420 LB T	29120 LB	14.56 TN	407.68

Total- 407.68

Driver Signature \_\_\_\_\_ Driver Printed Name \_\_\_\_\_  
Weight Codes: M=Manual, T=Stored Tare, 1/2 = Scale

REPRINTED  
Ticket# 963905  
Operator PSHAFFER\_JC

JOHNSON COUNTY LANDFILL  
PO BOX 3249  
SHAWNEE KS 66203

Date: 8/01/13  
In: 11:18 AM  
Out: 11:18 AM

Origin: KANSAS CITY-JAC

PO#: NA

Auth#: 13188  
Manifest: NA

Cust# 56-0001144

Veh1: FW-0003

Tare: 32860

MILE RAIL

Cont:

Tare:

8116 WILSON RD

KANSAS CITY MO 64125

Comment:

Material	Gross Wgt	Tare Wgt	Net Wgt	Qty	Amount
SW-CONTAMINATED SOIL	68080 LB 1	32860 LB T	35220 LB	17.61 TN	493.08

Total- 493.08

Driver Signature \_\_\_\_\_ Driver Printed Name \_\_\_\_\_  
Weight Codes: M=Manual, T=Stored Tare, 1/2 = Scale

REPRINTED  
Ticket# 964004  
Operator PSHAFFER\_JC

JOHNSON COUNTY LANDFILL  
PO BOX 3249  
SHAWNEE KS 66203

Date: 8/01/13  
In: 1:00 PM  
Out: 1:00 PM

Origin: KANSAS CITY-JAC

PO#: NA

Auth#: 13188  
Manifest: NA

Cust# 56-0001144

Veh1: MS-0007

Tare: 36420

MILE RAIL

Cont:

Tare:

8116 WILSON RD

KANSAS CITY MO 64125

Comment:

Material	Gross Wgt	Tare Wgt	Net Wgt	Qty	Amount
SW-CONTAMINATED SOIL	62620 LB 1	36420 LB T	26200 LB	13.10 TN	366.80

Total- 366.80

Driver Signature \_\_\_\_\_ Driver Printed Name \_\_\_\_\_  
Weight Codes: M=Manual, T=Stored Tare, 1/2 = Scale



Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number M00000031823	2. Page 1 of 1	3. Emergency Response Phone (800)326-1221	4. Manifest Tracking Number 000545555WAS				
5. Generator's Name and Mailing Address DENOVO GROUP / JOHN KUPAR 1302 W RANDOLPH ST CHICAGO, IL 60607-1514 (312)733-9370			Generator's Site Address (if different than mailing address) MILE RAIL, LLC / JOHN M. KUPAR 8116 WILSON RD KANSAS CITY, MO 64125-1327 GEN: 133926						
6. Transporter 1 Company Name HAZMAT RESPONSE INC.			U.S. EPA ID Number KSD985016047						
7. Transporter 2 Company Name			U.S. EPA ID Number						
8. Designated Facility Name and Site Address HERITAGE ENVIRONMENTAL SERVICES 4370 W COUNTY ROAD 1275 N ROACHDALE, IN 46172-9593 (765)435-2704			U.S. EPA ID Number IND980503890						
9a. HM		9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))		10. Containers		11. Total Quantity	12. Unit Wt/Vol.	13. Waste Codes	
				No. Type					
X		1. RQ, UN3432, POLYCHLORINATED BIPHENYLS, SOLID, 9, PGIII, (PCB REMEDIATION WASTE - SOIL), (RQ = 1 LB), ERG#171		1 CM		10000	R		
		2.							
		3.							
		4.							
14. Special Handling Instructions and Additional Information 1. W1_Q710401_T#6136308 EARLIEST DATE OF REMOVAL FROM SERVICE 8, 5, 2013 ERI:HERITAGE [3707191]G									
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations, if export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.									
Generator's/Officer's Printed/Typed Name MARK C. FLORES			Signature MARK C. FLORES			Month Day Year 08 05 13			
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: Date leaving U.S.:									
17. Transporter Acknowledgment of Receipt of Materials Transporter 1 Printed/Typed Name Jimmie Mosley Signature Jimmie Mosley Month Day Year 08 05 13 Transporter 2 Printed/Typed Name Signature Month Day Year									
18. Discrepancy 18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection Manifest Reference Number: 18b. Alternate Facility (or Generator) U.S. EPA ID Number Facility's Phone: 18c. Signature of Alternate Facility (or Generator) Month Day Year									
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems) 1. H132 2. 3. 4.									
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a Printed/Typed Name Signature Month Day Year 08 06 13									



Form Approved. OMB No. 2050-0039

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

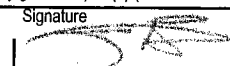

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number M00000031823	2. Page 1 of 1	3. Emergency Response Phone (800)326-1221	4. Manifest Tracking Number 000545556WAS		
5. Generator's Name and Mailing Address DENOVO GROUP / JOHN KUPAR 1302 W RANDOLPH ST CHICAGO, IL 60607-1514 Generator's Phone: (312)733-9370			Generator's Site Address (if different than mailing address) MILE RAIL, LLC / JOHN M. KUPAR 8116 WILSON RD KANSAS CITY, MO 64125-1327 GEN: 133926				
6. Transporter 1 Company Name HAZMAT RESPONSE INC.			U.S. EPA ID Number KSD985016047				
7. Transporter 2 Company Name			U.S. EPA ID Number				
8. Designated Facility Name and Site Address HERITAGE ENVIRONMENTAL SERVICES 4370 W COUNTY ROAD 1275 N ROACHDALE, IN 46172-9593 Facility's Phone: (765)435-2704			U.S. EPA ID Number IND980503890				
9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))		10. Containers No. Type		11. Total Quantity	12. Unit Wt/Vol	13. Waste Codes
X	1. RO, UN3432, POLYCHLORINATED BIPHENYLS, SOLID, 9, PGIII, (PCB REMEDIATION WASTE - SOIL), (RO = 1 LB), ERG#171		1 CM		20000 12776	K	
	2.						
	3.						
	4.						
14. Special Handling Instructions and Additional Information 1. W1_Q710401_T#6136310 EARLIEST DATE OF REMOVAL FROM SERVICE 8/5/2013 ERI: HERITAGE [3707192]G at 12736K (2802016)							
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.							
Generator's/Officer's Printed/Typed Name MARK FINNEY for MHR			Signature MARK C FINNEY			Month Day Year 8/5/13	
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: Date leaving U.S.:							
17. Transporter Acknowledgment of Receipt of Materials Transporter 1 Printed/Typed Name CHRISTOPHER EXBERG Transporter 2 Printed/Typed Name Signature Christopher Exberg Month Day Year 08/05/13							
18. Discrepancy 18a. Discrepancy Indication Space <input checked="" type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection DISCREPANCY RESOLVED PER MARK FINNEY @0806/13 18b. Alternate Facility (or Generator) Manifest Reference Number: U.S. EPA ID Number Facility's Phone: 18c. Signature of Alternate Facility (or Generator) Month Day Year							
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems) 1. H132 2. 3. 4.							
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 14a Printed/Typed Name Signature Month Day Year 08/06/13							



Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved, OMB No. 2050-0039

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator ID Number M00000031823	2. Page 1 of 1	3. Emergency Response Phone (800)326-1221	4. Manifest Tracking Number 000551529WAS		
5. Generator's Name and Mailing Address DENOVO GROUP / JOHN KUPAR 1302 W RANDOLPH ST CHICAGO, IL 60607-1514 Generator's Phone: (312)733-9370			Generator's Site Address (if different than mailing address) MILE RAIL, LLC / JOHN M. KUPAR 8116 WILSON RD KANSAS CITY, MO 64125-1327 GEN: 133926				
6. Transporter 1 Company Name U.S. BULK TRANSPORT, INC			U.S. EPA ID Number PAD987347515				
7. Transporter 2 Company Name			U.S. EPA ID Number				
8. Designated Facility Name and Site Address HERITAGE ENVIRONMENTAL SERVICES 4370 W COUNTY ROAD 1275 N ROACHDALE, IN 46172-9593 Facility's Phone: (765)435-2704			U.S. EPA ID Number IND980503890				
GENERATOR	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No. Type		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	X	1. RQ, UN3432, POLYCHLORINATED BIPHENYLS, SOLID, 9, PGIII, (PCB REMEDIATION WASTE - SOIL), (RQ = 1 LB), ERG#171	1	DT	20,000	K	
		2.					
		3.					
		4.					
14. Special Handling Instructions and Additional Information 1. W1_Q710401_T#6117998 EARLIEST DATE OF REMOVAL FROM SERVICE 07 / 31 / 13 008-01-13 w/ 199001kg (4328016) ERI:HERITAGE [3692646]G							
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.							
Generator's/Officer's Printed/Typed Name Shane Brunsand for Mike Rail			Signature 		Month Day Year 07/31/13		
TRANSPORTER INTL	16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S.			Port of entry/exit: Date leaving U.S.:			
	Transporter signature (for exports only):						
TRANSPORTER	17. Transporter Acknowledgment of Receipt of Materials						
	Transporter 1 Printed/Typed Name Todd Stappenbar			Signature 		Month Day Year 07/31/13	
DESIGNATED FACILITY	Transporter 2 Printed/Typed Name			Signature		Month Day Year	
18. Discrepancy							
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection							
Manifest Reference Number:							
18b. Alternate Facility (or Generator) U.S. EPA ID Number							
Facility's Phone:							
18c. Signature of Alternate Facility (or Generator) Month Day Year							
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)							
1. H132		2.		3.		4.	
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in item 18a							
Printed/Typed Name 			Signature 		Month Day Year 08/01/13		

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator ID Number N0000031822		2. Page 1 of 1		3. Emergency Response Phone (800) 325-1321		4. Manifest Tracking Number 000607211445		
		5. Generator's Name and Mailing Address DKNOVO GROUP / JOHN KUPAP 1302 W RANDOLPH ST CHICAGO, IL 60607-1314 Generator's Phone: (312) 773-3470		Generator's Site Address (if different than mailing address) HILE HAIL, LLC / JOHN M. KUPAP 8116 WILSON RD KANSAS CITY, MO 64125-1327 GEN: 133925						
6. Transporter 1 Company Name U.S. RAIL TRANSPORT, INC		U.S. EPA ID Number PA0967347515								
7. Transporter 2 Company Name		U.S. EPA ID Number								
8. Designated Facility Name and Site Address HERITAGE ENVIRONMENTAL SERVICES 4370 W COUNTY ROAD 1275 N POCAHONTAS, IN 46172-9401 Facility's Phone: (765) 435-0704		U.S. EPA ID Number IND990507030								
GENERATOR	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))				10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
						No.	Type			
	1.	1. 80, UN3432, POLYCHLORINATED BIPHENYLS, SOLID, POLY (PCB PERMEATION WASTE - SOLID), 100 - 1 LB, EPCW171				1	CH	17070	K	
	2.									
	3.									
	4.									
14. Special Handling Instructions and Additional Information M1 D710401 T40905638 EARLIEST DATE OF REMOVAL FROM SERVICE 04/16/14 EPI-HERITAGE 1430501316										
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.										
Generator's/Offeror's Printed/Typed Name Shane Bruggard Co M/L Rail, LLC										
Signature 										
Month Day Year 04/16/14										
TRANSPORTER	16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: Date leaving U.S.:									
	Transporter signature (for exports only):									
	17. Transporter Acknowledgment of Receipt of Materials									
	Transporter 1 Printed/Typed Name Les Hume					Signature 				
	Month Day Year 4/16/14									
DESIGNATED FACILITY	18. Discrepancy									
	18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection									
	Manifest Reference Number:									
	18b. Alternate Facility (or Generator) U.S. EPA ID Number									
	Facility's Phone:									
18c. Signature of Alternate Facility (or Generator)										
Month Day Year										
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)										
1. 4132		2.		3.		4.				
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a										
Printed/Typed Name Signature										
Month Day Year										

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator ID Number 800000091823		2. Page 1 of 1		3. Emergency Response Phone 18001276-1231		4. Manifest Tracking Number 000611834WAS		
		5. Generator's Name and Mailing Address DENOV GROUP / JOHN KUPAR 1302 N RANDOLPH ST CHICAGO, IL 60607-1514 Generator's Phone: (312) 733-9970		Generator's Site Address (if different than mailing address) HILE RAIL, LLC / JOHN N. KUPAR 918 WILSON RD KANAS CITY, MO 64105-1327 GEN: 123906						
6. Transporter 1 Company Name U.S. GULF TRANSPORT, INC		U.S. EPA ID Number PA0987947515								
7. Transporter 2 Company Name		U.S. EPA ID Number								
8. Designated Facility Name and Site Address HERITAGE ENVIRONMENTAL SERVICES 4370 W COUNTY ROAD 1275 N BOA-MORE, IN 46170-9489 Facility's Phone: (765) 435-2704		U.S. EPA ID Number ID09825K0990								
GENERATOR	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))				10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
						No.	Type			
	1.	PG, UN3432, POLYCHLORINATED BIPHENYLS, SOLID, 3, PG111, (PCP REGENERATION WASTE - COIL), (Q1 = 1 DR), BRQ111				1	CR	16330	K	
	2.									
	3.									
	4.									
14. Special Handling Instructions and Additional Information ML 0710401 217018030 EARLIEST DATE OF REMOVAL FROM SERVICE 05/20/14 EXT: HEP (TAGS) 05/11/2015										
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.										
Generator's/Offor's Printed/Typed Name Shane Bungardt for M/L Rail, LLC										
Signature: [Signature] Month: 05 Day: 20 Year: 14										
TRANSPORTER	16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Transporter signature (for exports only): _____ Date leaving U.S.: _____									
	17. Transporter Acknowledgment of Receipt of Materials									
	Transporter 1 Printed/Typed Name GIL YOUNG CO				Signature [Signature]				Month: 05 Day: 20 Year: 14	
	Transporter 2 Printed/Typed Name				Signature				Month: Day: Year	
SIGNATURE FACILITY	18. Discrepancy									
	18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection									
	Manifest Reference Number: _____									
	18b. Alternate Facility (or Generator) U.S. EPA ID Number									
	Facility's Phone: _____									
	18c. Signature of Alternate Facility (or Generator) Month: Day: Year									
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)										
1. H132		2.		3.		4.				
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a										
Printed/Typed Name Signature Month: Day: Year										

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number		
		600000031823	1	(800) 326-1221	000607212443		
5. Generator's Name and Mailing Address			Generator's Site Address (if different than mailing address)				
DENOV0 GROUP / JOHN KUPAR 1702 W PARDOLPH ST CHICAGO, IL 60607-1514 Generator's Phone: (312) 783-9970			MILE RAIL, LLC / JOHN M. KUPAR 8116 WILSON RD KANSAS CITY, MO 64125-1327 GEN: 133926				
6. Transporter 1 Company Name			U.S. EPA ID Number				
U.S. RAIL TRANSPORT, INC			PA0987047513				
7. Transporter 2 Company Name			U.S. EPA ID Number				
8. Designated Facility Name and Site Address			U.S. EPA ID Number				
HERITAGE ENVIRONMENTAL SERVICES 4970 W COUNTY ROAD 1275 N BOACHDALE, IN 46122-9890 Facility's Phone: (765) 438-2704			IND090503890				
GENERATOR	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
			No.	Type			
	X	RD, UN3432, POLYCHLORINATED BIPHENYLS, SOLID, 9, POI11, (PCB REMEDIATION WASTE - SOIL), (92 = 1 LB), WGT112	1	CM	2,154	K	
14. Special Handling Instructions and Additional Information							
W12710401 TW00560 EARLIEST DATE OF REMOVAL FROM SERVICE 06/22/14 EPI: WERTTACN (430501410)							
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.							
Generator's/Offor's Printed/Typed Name		Signature		Month	Day	Year	
John Kupar		[Signature]		15	07	14	
TRANSPORTER	16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S.		Port of entry/exit:				
	Transporter signature (for exports only):		Date leaving U.S.:				
TRANSPORTER	17. Transporter Acknowledgment of Receipt of Materials		Signature				
	Transporter 1 Printed/Typed Name		Signature		Month	Day	Year
Green Valley		[Signature]		15	07	14	
Transporter 2 Printed/Typed Name		Signature		Month	Day	Year	
DESIGNATED FACILITY	18. Discrepancy						
	18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection						
	Manifest Reference Number:						
	18b. Alternate Facility (or Generator) U.S. EPA ID Number						
	Facility's Phone:						
18c. Signature of Alternate Facility (or Generator) Month Day Year							
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)							
W132		2	3	4			
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a							
Printed/Typed Name		Signature		Month	Day	Year	

## **Appendix D**

### **Union Pacific Railroad Company Right of Entry Agreement**

## CONTRACTOR'S ENDORSEMENT

Folder No. 2842-48

A. As a condition to entering upon Licensor's right-of-way to perform work pursuant to this Agreement, Licensee's contractor (*Fill in*):

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(hereinafter "Contractor") agrees to comply with all the terms and provisions of this Agreement relating to the work to be performed and the insurance requirements set forth in Exhibit C.

B. Before the Contractor commences any work, the Contractor will pay the Licensor a nonrefundable payment of \$500 upon execution and return of this Contractor's Endorsement, and will provide the Licensor with a certificate issued by its insurance carrier providing the insurance coverage required pursuant to Exhibit C in a policy which contains the following type endorsement:

UNION PACIFIC RAILROAD COMPANY is named as an additional insured with respect to all liabilities arising out of Insured's performance of work on behalf of the Licensee.

All insurance correspondence shall be directed to: Justin K. Mahr - Folder No. 2842-48, Union Pacific Railroad Company, 1400 Douglas Street STOP 1690, Omaha, Nebraska 68179-1690.

\_\_\_\_\_  
(Please print Contractor's Name above)

X \_\_\_\_\_  
Title: \_\_\_\_\_

## **RIGHT OF ENTRY AGREEMENT**

**THIS AGREEMENT** is made and entered into as of December 11, 2013, by and between **UNION PACIFIC RAILROAD COMPANY**, a Delaware corporation (hereinafter the "Railroad"), and **MILE RAIL, LLC**, a Michigan limited liability corporation, to be addressed at 281 Woodcreek Ct., Commerce, MI 48390 (hereinafter the "Licensee").

### **IT IS MUTUALLY AGREED BY AND BETWEEN THE PARTIES HERETO AS FOLLOWS:**

#### **Article 1. DEFINITION OF LICENSEE.**

For purposes of this Agreement, all references in this Agreement to the Licensee shall include the Licensee's contractors, subcontractors, officers, agents and employees, and others acting under its or their authority.

#### **Article 2. RIGHT GRANTED; PURPOSE.**

The Railroad hereby grants to the Licensee the right, during the term hereinafter stated and upon and subject to each and all of the terms, provisions and conditions herein contained, to enter upon and have ingress to and egress from the portion of Railroad's property in the vicinity of Mile Post 277.3, K.C Metro (Neff Yard), at or near Kansas City, Missouri, for the purpose of taking up to 12 soil borings & 48 subsurface/sediment samples, plus 3 ground water samples will be taken. The right herein granted to Licensee is limited to those portions of the Railroad's property specifically described herein in the location shown on the print marked Exhibit A, attached hereto and hereby made a part hereof, or designated by the Railroad Representative named in Article 4.

For the purposes of Exhibit A, Licensee acknowledges that if it or its contractor provides to Railroad digital imagery, Licensee authorizes Railroad to use the Digital Imagery in preparing the print attached as an exhibit hereto. Licensee represents and warrants that through a license or otherwise, it has the right to use the Digital Imagery and to permit Railroad to use the Digital Imagery in said manner.

#### **Article 3. TERMS AND CONDITIONS CONTAINED IN EXHIBITS B AND C.**

The terms and conditions contained in Exhibits B and C, hereto attached, are hereby made a part of this Agreement.

**Article 4.      ALL EXPENSES TO BE BORNE BY LICENSEE;  
RAILROAD REPRESENTATIVE.**

The Licensee shall bear any and all costs and expenses associated with any work performed by the Licensee, or any costs or expenses incurred by the Railroad relating to this Agreement. All work performed by Licensee on Railroad's property shall be performed in a manner satisfactory to the representative local Manager of Track Maintenance of the Railroad or his authorized representative (hereinafter the Railroad Representative):

KYLE J. VEDDER  
MGR TRACK MNTCE  
600 Broadway, Ste 500  
Kansas City, MO 64105  
Work Phone: 816-399-1374  
Cell Phone: 913-940-2875

**Article 5.      TERM; TERMINATION.**

A. The grant of right herein made to Licensee shall commence on the date of this Agreement, and continue until December 31, 2014 unless sooner terminated as herein provided, or at such time as Licensee has completed its work on Railroad's property, whichever is earlier. Licensee agrees to notify the Railroad Representative in writing when it has completed its work on Railroad property.

B. This Agreement may be terminated by either party on ten (10) days written notice to the other party.

**Article 6.      CERTIFICATE OF INSURANCE.**

A. Before commencing any work, the Licensee will provide the Railroad with a Certificate issued by its insurance carrier providing the insurance coverage required pursuant to Exhibit C of this Agreement in a policy which contains the following type of endorsement:

"Union Pacific Railroad Company is named as additional insured with respect to all liabilities arising out of Insured's, as Licensee, performance of any work on the property of the Railroad."

B. Licensee warrants that this Agreement has been thoroughly reviewed by its insurance agent(s)/broker(s) and that said agent(s)/broker(s) has been instructed to procure insurance coverage and an endorsement as required herein.

C. Union Pacific should be listed as certificate holder and all insurance correspondence shall be directed to: Union Pacific Railroad Company, Director (Attn.: Justin K. Mahr - Folder No.2842-48), 1400 Douglas Street STOP 1690, Omaha, Nebraska 68179-1690.

**Article 7.     PROTECTION OF FIBER OPTIC CABLE SYSTEMS.**

Fiber optic cable systems may be buried on Licensor's property. Protection of the fiber optic cable systems is of extreme importance since any break could disrupt service to users resulting in business interruption and loss of revenue and profits. Prior to beginning any work, the Licensee shall telephone the Railroad at **1-800-336-9193** (a 24-hour number) to determine if fiber optic cable is buried anywhere on the property set forth herein. If it is, the Licensee shall also comply with and be subject to the provisions contained in Section 6 of Exhibit B.

**Article 8.     ENFORCEABILITY; CHOICE OF LAW; CHOICE OF FORUM.**

This Agreement shall be governed, construed, and enforced in accordance with the laws of the state of Nebraska. Litigation arising out of or connected with this Agreement may be instituted and maintained in the courts of the state of Nebraska and Missouri only, and the parties consent to jurisdiction over their person and over the subject matter of any such litigation, in those courts, and consent to service of process issued by such courts.

**Article 9.     LICENSE FEE.**

Licensee shall pay, and Railroad shall accept, upon the execution and return of this instrument, the nonrefundable sum of **Eleven Thousand Five Hundred Dollars (\$11,500.00)** to cover Railroad's cost to prepare and administer this Agreement.

Flagging charges are not included in the sum recited in the preceding paragraph, and will be billed separately, if incurred.

**Article 10.    CONFIDENTIALITY.**

A.     The Parties acknowledge that any data, samples, test results, laboratory analyses, or other information obtained or derived from any environmental investigation or other related work performed on Railroad's Property, and all documents, reports or other information that are developed which pertain to environmental conditions on Railroad's Property (hereinafter "the Environmental Report") are confidential in nature. The Parties agree that all such information, including the Environmental Report, shall be distributed only to those officers, directors and employees of Railroad and Licensee who are authorized by the Railroad to receive such information.

B.     Government agencies that are authorized by law to obtain the Environmental Report, including any data, samples, laboratory analyses, and/or other information relied upon to develop the Environmental Report, are authorized by the Railroad to receive the Environmental Report when requested pursuant to legally applicable federal, state or local mandate. Licensee agrees that the Railroad shall be notified of any request by a federal, state or local government agency for copies of the Environmental Report and/or related information.

C.     The Licensee agrees to take all reasonable measures to assure continuous confidentiality and protection of the Environmental Report, including keeping copies to a minimum and maintaining a log that identifies each and every individual that has had access to the Environmental Report or has otherwise taken possession of the Environmental Report.

D.     Adequate instructions shall be issued by the Licensee to all affected officers, directors, employees and consultants of the Licensee as necessary to satisfy the confidentiality provisions of this Agreement.

E. The Licensee's contractors, subcontractors, consultants, lenders, counsel and advisors, including legal counsel, that are hired to assist, conduct, prepare and/or review the Environmental Report, shall not be provided a copy of the Environmental Report and/or related information until they agree in writing to adhere to all the provisions of this Agreement.

F. Licensee agrees that the Environmental Report, and all associated data, samples, analyses, and other information, are and shall remain the personal property of the Railroad. Upon completion of its work, Licensee agrees to turn the Environmental Report and all associated data and other information, including all copies thereof, over to the Railroad.

G. In addition to any other remedy at law, the Parties agree that either Party shall have the right to enjoin the other Party, including the other Party's contractors, subcontractors, consultants, lenders, counsel, and/or advisors, in any court of competent jurisdiction for breach of the confidentiality provisions of this Agreement.

H. All the terms contained in this Agreement shall survive completion of any work authorized by this Agreement, as well as any related discussions and/or negotiations. The Licensee and Railroad agree to be bound by the confidentiality provisions of this Agreement in perpetuity.

Article 11. **SPECIAL PROVISION – RAILROAD FLAGMAN; WHEN REQUIRED; FLAGGING CHARGES.**

A. No work of any kind shall be performed, and no person, equipment, machinery, tool(s), material(s), vehicle(s), or thing(s) shall be located, operated, placed, or stored within 25 feet of any of Railroad's track(s) at any time, for any reason, unless and until a Railroad flagman is provided to watch for trains, pursuant to the terms of the attached Exhibit 'B'. All expenses connected with the furnishing of said flagman shall be at the sole cost and expense of the Licensee, who shall promptly pay to Railroad all charges connected therewith, within 30 days after presentation of a bill therefore.

B. One and one-half times the current hourly rate is paid for overtime, Saturdays and Sundays; two and one-half times current hourly rate for holidays.

C. Wage rates are subject to change, at any time, by law or by agreement between the Railroad and its employees, and may be retroactive as a result of negotiations or a ruling of an authorized Governmental Agency. Additional charges on labor are also subject to change. If the wage rate or additional charges are changed, the Licensee shall pay on the basis of the new rates and charges.

D. Reimbursement to the Railroad will be required covering the full eight hour day during which any flagman is furnished, unless he can be assigned to other Railroad work during a portion of such day, in which event reimbursement will not be required for the portion of the day during which the flagman is engaged in other work. Reimbursement will also be required for any day not actually worked by said flagman following his assignment to work on the project for which the Railroad is required to pay the flagman and which could not reasonably be avoided by the Railroad Company by assignment of such flagman to other work, even though the Licensee may not be working during such time.

E. Arrangements for flagging are to be made at least Thirty (30) days in advance of commencing work, with the Railroad Manager of Track Maintenance

**Article 12. LICENSEE SHALL FURNISH INFORMATION TO THE RAILROAD.**

Prior to entering Railroad's property, the Licensee shall also furnish to Railroad a copy of all correspondence (which shall remain a continuing obligation that includes all past and any future correspondence) with any regulatory agencies, or others, that may be involved in this project; a copy of a work plan and a location plan. Prior to the conclusion of this Agreement, the Licensee shall also furnish to the Railroad a copy of all boring logs, and all analytical results obtained hereunder; and advise the Railroad of any and all clean-up activities undertaken with respect to this project and the results and conclusion of same. All required information shall be directed to Union Pacific Railroad Company, c/o Mr. Joel Strafelda, 1400 Douglas Street, STOP 1030, Omaha, NE 68179-1030.

**IN WITNESS WHEREOF**, the parties hereto have caused this Agreement to be executed as of the date first herein written.

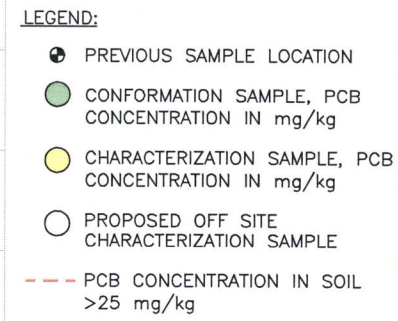
**UNION PACIFIC RAILROAD COMPANY**  
*Federal Taxpayer I.D. #94-6001323*

**MILE RAIL, LLC**

By: \_\_\_\_\_  
Manager - Contracts

By: \_\_\_\_\_  
Title: \_\_\_\_\_

*(Pursuant to ordinance, resolution, or other evidence of proper authority to execute this instrument, a copy of which shall be attached to the Railroad's original counterpart of this document.)*



NOTE: BEFORE YOU BEGIN ANY WORK, SEE  
AGREEMENT FOR FIBER OPTIC PROVISION,  
EXHIBIT "A"

UNION PACIFIC RAILROAD COMPANY  
Kansas City, Jackson County, MO  
M.P. 277.3 – K.C. Metro (Neff Yard)  
License to Mile Rail, LLC  
REAL ESTATE DEPARTMENT  
OMAHA, NE Date: 12/12/2013  
Folder: 2842-48

SCALE



## **EXHIBIT B**

### **Section 1 - NOTICE OF COMMENCEMENT OF WORK – FLAGGING.**

The Licensee agrees to notify the Railroad Representative at least Ten (10) days in advance of Licensee commencing its work and at least 24 hours in advance of proposed performance of any work by the Licensee in which any person or equipment will be within 25 feet of any track, or will be near enough to any track that any equipment extension (such as, but not limited to, a crane boom) will reach to within 25 feet of any track. Upon receipt of such notice, the Railroad Representative will determine and inform the Licensee whether a flagman need be present and whether the Licensee need implement any special protective or safety measures. If any flagmen or other special protective or safety measures are performed by the Railroad, such services will be provided at Licensee's expense with the understanding that if the Railroad provides any flagging or other services, the Licensee shall not be relieved of any of its responsibilities or liabilities set forth herein.

### **Section 2 - LIMITATION AND SUBORDINATION OF RIGHTS GRANTED.**

a. The foregoing grant of right is subject and subordinate to the prior and continuing right and obligation of the Railroad to use and maintain its entire property including the right and power of the Railroad to construct, maintain, repair, renew, use, operate, change, modify or relocate railroad tracks, roadways, signal, communication, fiber optics, or other wirelines, pipelines and other facilities upon, along or across any or all parts of its property, all or any of which may be freely done at any time or times by the Railroad without liability to the Licensee or to any other party for compensation or damages.

b. The foregoing grant is also subject to all outstanding superior rights (including those in favor of licensees and lessees of the Railroad's property, and others) and the right of the Railroad to renew and extend the same, and is made without covenant of title or for quiet enjoyment.

### **Section 3 - NO INTERFERENCE WITH RAILROAD'S OPERATION.**

No work performed by Licensee shall cause any interference with the constant, continuous and uninterrupted use of the tracks, property and facilities of the Railroad, its lessees, licensees or others, unless specifically permitted under this Agreement, or specifically authorized in advance by the Railroad Representative. Nothing shall be done or suffered to be done by the Licensee at any time that would in any manner impair the safety thereof. When not in use, Licensee's machinery and materials shall be kept at least 50 feet from the centerline of Railroad's nearest track, and there shall be no crossings of Railroad's tracks except at existing open public crossings.

### **Section 4 - PERMITS.**

Prior to beginning any work, the Licensee, at its sole expense, shall obtain all necessary permits to perform any work contemplated by this Agreement.

**Section 5 - MECHANIC'S LIENS.**

The Licensee shall pay in full all persons who perform labor or provide materials for the work to be performed by Licensee. The Licensee shall not create, permit or suffer any mechanic's or materialmen's liens of any kind or nature to be enforced against any property of the Railroad for any such work performed. The Licensee shall indemnify and hold harmless the Railroad from and against any and all liens, claims, demands, costs or expenses of whatsoever nature in any way connected with or growing out of such work done, labor performed, or materials furnished.

**Section 6 - FIBER OPTIC CABLE SYSTEMS.**

In addition to other indemnity provisions in this Agreement, the Licensee shall indemnify and hold the Railroad harmless from and against all costs, liability and expense whatsoever (including, without limitation, attorneys' fees, court costs and expenses) arising out of any act or omission of the Licensee, its contractor, agents and/or employees, that causes or contributes to (1) any damage to or destruction of any telecommunications system on Railroad's property, and (2) any injury to or death of any person employed by or on behalf of any telecommunications company, and/or its contractor, agents and/or employees, on Railroad's property. Licensee shall not have or seek recourse against Railroad for any claim or cause of action for alleged loss of profits or revenue or loss of service or other consequential damage to a telecommunication company using Railroad's property or a customer or user of services of the fiber optic cable on Railroad's property.

**Section 7 - COMPLIANCE WITH LAWS.**

In the prosecution of the work covered by this Agreement, the Licensee shall comply with all applicable federal, state and local laws, regulations and enactments affecting the work. The Licensee shall use only such methods as are consistent with safety, both as concerns the Licensee, the Licensee's agents and employees, the officers, agents, employees and property of the Railroad and the public in general. The Licensee (without limiting the generality of the foregoing) shall comply with all applicable state and federal occupational safety and health acts and regulations. All Federal Railroad Administration regulations shall be followed when work is performed on the Railroad's property. If any failure by the Licensee to comply with any such laws, regulations, and enactments, shall result in any fine, penalty, cost or charge being assessed, imposed or charged against the Railroad, the Licensee shall reimburse and indemnify the Railroad for any such fine, penalty, cost or charge, including without limitation attorneys' fees, court costs and expenses. The Licensee further agrees in the event of any such action, upon notice thereof being provided by the Railroad, to defend such action free of cost, charge, or expense to the Railroad.

**Section 8 - SAFETY INSTRUCTIONS.**

Safety of personnel, property, rail operations and the public is of paramount importance in the prosecution of the work pursuant to this Agreement. As reinforcement and in furtherance of overall safety measures to be observed by the Licensee (and not by way of limitation), the following special safety rules shall be followed:

a. The Licensee shall keep the job site free from safety and health hazards and ensure that its employees are competent and adequately trained in all safety and health aspects of the job. The Licensee shall have proper first aid supplies available on the job site so that prompt first aid services can be provided to any person that may be injured on the job site. The Licensee shall promptly notify the Railroad of any U.S. Occupational Safety and Health Administration reportable injuries occurring to any person that may arise during the work performed on the job site. The Licensee shall have a non-delegable

duty to control its employees, while they are on the job site or any other property of the Railroad to be certain they do not use, be under the influence of, or have in their possession any alcoholic beverage or illegally obtained drug, narcotic or other substance that may inhibit the safe performance of work by an employee.

b. The employees of the Licensee shall be suitably dressed to perform their duties safely and in a manner that will not interfere with their vision, hearing or free use of their hands or feet. Only waist length shirts with sleeves and trousers that cover the entire leg are to be worn. If flare-legged trousers are worn, the trouser bottoms must be tied to prevent catching. The employees should wear sturdy and protective footwear. Employees shall not wear boots (other than work boots), sandals, canvas-type shoes or other shoes that have thin soles or heels that are higher than normal. In addition, the Licensee shall require its employees to wear personal protective equipment as specified by Railroad rules, regulations or Railroad officials overlooking the work at the job site. In particular, the protective equipment to be worn shall be:

(1) Protective head gear that meets American National Standard-Z89.1-latest revision. It is suggested that all hardhats be affixed with Licensee's or subcontractor's company logo or name.

(2) Eye protection that meets American National Standard for occupational and educational eye and face protection, Z87.1-latest revision. Additional eye protection must be provided to meet specific job situations such as welding, grinding, burning, etc.; and

(3) Hearing protection which affords enough attenuation to give protection from noise levels that will be occurring on the job site.

c. All heavy equipment provided or leased by the Licensee shall be equipped with audible back-up warning devices. If in the opinion of the Railroad Representative any of Licensee's or any of its subcontractors' equipment is unsafe for use on the Railroad's right-of-way, the Licensee, at the request of the Railroad Representative, shall remove such equipment from the Railroad's right-of-way.

## **Section 9 - INDEMNITY.**

a. As used in this Section, "Railroad" includes other railroad companies using the Railroad's property at or near the location of the Licensee's installation and their officers, agents, and employees; "Loss" includes loss, damage, claims, demands, actions, causes of action, penalties, costs, and expenses of whatsoever nature, including court costs and attorneys' fees, which may result from: (i) injury to or death of persons whomsoever (including the Railroad's officers, agents, and employees, the Licensee's officers, agents, and employees, as well as any other person); and (ii) damage to or loss or destruction of property whatsoever (including Licensee's property, damage to the roadbed, tracks, equipment, or other property of the Railroad, or property in its care or custody).

b. As a major inducement and in consideration of the license and permission herein granted, the Licensee agrees to indemnify and hold harmless the Railroad from any Loss which is due to or arises from any cause and is associated in whole or in part with the work performed under this Agreement, a breach of the Agreement or the failure to observe the health and safety provisions herein, or any activity or omission arising out of performance or nonperformance of this Agreement; regardless of whether caused solely or contributed to in part by the negligence or fault of the Railroad.

c. Any liability of either party hereunder to one of its employees under any Workers' Compensation Act or the Federal Employers' Liability Act shall not be questioned or in any way challenged by the other party, nor shall any jury or court findings, resulting from any employee's suit against either party pursuant to any such Act(s), be relied upon or used by either party in any attempt to assert common law liability against the other.

**Section 10 - RESTORATION OF PROPERTY.**

In the event the Railroad authorizes the Licensee to take down any fence of the Railroad or in any manner move or disturb any of the other property of the Railroad in connection with the work to be performed by Licensee, then in that event the Licensee shall, as soon as possible and at Licensee's sole expense, restore such fence and other property to the same condition as the same were in before such fence was taken down or such other property was moved or disturbed, and the Licensee shall indemnify and hold harmless the Railroad, its officers, agents and employees, against and from any and all liability, loss, damages, claims, demands, costs and expenses of whatsoever nature, arising from the taking down of any fence or the moving or disturbance of any other property of the Railroad.

**Section 11 - WAIVER OF BREACH.**

The waiver by the Railroad of the breach of any condition, covenant or agreement herein contained to be kept, observed and performed by the Licensee shall in no way impair the right of the Railroad to avail itself of any remedy for any subsequent breach thereof.

**Section 12 - ASSIGNMENT - SUBCONTRACTING.**

The Licensee shall not assign, sublet or subcontract this Agreement, or any interest therein, without the written consent of the Railroad and any attempt to so assign, sublet or subcontract without the written consent of the Railroad shall be void. If the Railroad gives the Licensee permission to subcontract all or any portion of the work herein described, the Licensee is and shall remain responsible for all work of subcontractors and all work of subcontractors shall be governed by the terms of this Agreement.

## **EXHIBIT C**

### **Union Pacific Railroad Contract Insurance Requirements**

#### **Right of Entry Agreement**

Licensee shall, at its sole cost and expense, procure and maintain during the life of this Agreement (except as otherwise provided in this Agreement) the following insurance coverage:

**A. Commercial General Liability insurance.** Commercial general liability (CGL) with a limit of not less than \$5,000,000 each occurrence and an aggregate limit of not less than \$10,000,000. CGL insurance must be written on ISO occurrence form CG 00 01 12 04 (or a substitute form providing equivalent coverage).

The policy must also contain the following endorsement, which must be stated on the certificate of insurance:

Contractual Liability Railroads ISO form CG 24 17 10 01 (or a substitute form providing equivalent coverage) showing "Union Pacific Railroad Company Property" as the Designated Job Site.

**B. Business Automobile Coverage insurance.** Business auto coverage written on ISO form CA 00 01 (or a substitute form providing equivalent liability coverage) with a combined single limit of not less \$2,000,000 for each accident.

The policy must contain the following endorsements, which must be stated on the certificate of insurance: Coverage For Certain Operations In Connection With Railroads ISO form CA 20 70 10 01 (or a substitute form providing equivalent coverage) showing "Union Pacific Property" as the Designated Job Site.

- Motor Carrier Act Endorsement - Hazardous materials clean up (MCS-90) if required by law.

**C. Workers Compensation and Employers Liability insurance.** Coverage must include but not be limited to:

Licensee's statutory liability under the workers' compensation laws of the state(s) affected by this Agreement.

Employers' Liability (Part B) with limits of at least \$500,000 each accident, \$500,000 disease policy limit \$500,000 each employee.

If Licensee is self-insured, evidence of state approval and excess workers compensation coverage must be provided. Coverage must include liability arising out of the U. S. Longshoremen's and Harbor Workers' Act, the Jones Act, and the Outer Continental Shelf Land Act, if applicable.

**D. Railroad Protective Liability insurance.** Licensee must maintain Railroad Protective Liability insurance written on ISO occurrence form CG 00 35 12 04 (or a substitute form providing equivalent coverage) on behalf of Railroad as named insured, with a limit of not less than \$2,000,000 per occurrence and an aggregate of \$6,000,000. A binder stating the policy is in place must be submitted to Railroad before the work may be commenced and until the original policy is forwarded to Railroad.

**E. Umbrella or Excess insurance.** If Licensee utilizes umbrella or excess policies, these policies must "follow form" and afford no less coverage than the primary policy.

**F. Pollution Liability insurance.** Pollution Liability coverage must be included when the scope of the work as defined in the Agreement includes installation, temporary storage, or disposal of any "hazardous" material that is injurious in or upon land, the atmosphere, or any watercourses; or may cause bodily injury at any time.

Pollution liability coverage must be written on ISO form Pollution Liability Coverage Form Designated Sites CG 00 39 12 04 (or a substitute form providing equivalent liability coverage), with limits of at least \$5,000,000 per occurrence and an aggregate limit of \$10,000,000.

If the scope of work as defined in this Agreement includes the disposal of any hazardous or non-hazardous materials from the job site, Licensee must furnish to Railroad evidence of pollution legal liability insurance maintained by the disposal site operator for losses arising from the insured facility accepting the materials, with coverage in minimum amounts of \$1,000,000 per loss, and an annual aggregate of \$2,000,000.

#### **Other Requirements**

**G.** All policy(ies) required above (except worker's compensation and employers liability) must include Railroad as "Additional Insured" using ISO Additional Insured Endorsements CG 20 26, and CA 20 48 (or substitute forms providing equivalent coverage). The coverage provided to Railroad as additional insured shall, to the extent provided under ISO Additional Insured Endorsement CG 20 26, and CA 20 48 provide coverage for Railroad's negligence whether sole or partial, active or passive, and shall not be limited by Licensee's liability under the indemnity provisions of this Agreement.

**H.** Punitive damages exclusion, if any, must be deleted (and the deletion indicated on the certificate of insurance), unless (a) insurance coverage may not lawfully be obtained for any punitive damages that may arise under this agreement, or (b) all punitive damages are prohibited by all states in which this agreement will be performed..

**I.** Licensee waives all rights against Railroad and its agents, officers, directors and employees for recovery of damages to the extent these damages are covered by the workers compensation and employers liability or commercial umbrella or excess liability insurance obtained by Licensee required by this agreement.

**J.** Prior to commencing the work, Licensee shall furnish Railroad with a certificate(s) of insurance, executed by a duly authorized representative of each insurer, showing compliance with the insurance requirements in this Agreement.

**K.** All insurance policies must be written by a reputable insurance company acceptable to Railroad or with a current Best's Insurance Guide Rating of A- and Class VII or better, and authorized to do business in the state(s) in which the work is to be performed.

**L.** The fact that insurance is obtained by Licensee or by Railroad on behalf of Licensee will not be deemed to release or diminish the liability of Licensee, including, without limitation, liability under the indemnity provisions of this Agreement. Damages recoverable by Railroad from Licensee or any third party will not be limited by the amount of the required insurance coverage.